

SUSTAINABLE TRANSPORTATION TASK FORCE

CROSS-CANADA SURVEY

ON

JURISDICTIONS' APPROACHES AND ACTIVITIES IN

SUSTAINABLE TRANSPORTATION



March 2009

TABLE OF CONTENTS

List of Tables and Figures.....	4
Executive Summary.....	5
1.Introduction.....	6
2.Towards Sustainable Transportation in Canada: Results of a National Survey.....	7
2.1 Definitions/Sustainability Frameworks/Responsible Departments.....	7
2.1.1 Jurisdictional Definitions.....	8
2.1.2 Jurisdictional Sustainability Frameworks.....	9
2.1.3 Organizational Responsibility.....	10
2.2 Jurisdictional Initiatives and Best Practices.....	12
2.2.1 Alberta.....	12
2.2.2 British Columbia.....	13
2.2.3 Manitoba.....	13
2.2.4 New Brunswick.....	14
2.2.5 Newfoundland and Labrador.....	14
2.2.6 Northwest Territories.....	15
2.2.7 Nova Scotia.....	15
2.2.8 Ontario.....	15
2.2.9 Prince Edward Island.....	16
2.2.10 Québec.....	16
2.2.11 Saskatchewan.....	16
2.2.12 Yukon.....	17
2.2.13 Canada.....	17
3.Summary.....	20
3.1 Summary and STTF Considerations.....	20
3.1.1 Leadership Roles.....	20
3.1.2 Outreach Roles.....	21

Appendices.....	221
Appendix A – Acronym Bibliography	22
Appendix B – Proposed Definitions of Sustainable Transportation	23
Appendix C – Tables of Jurisdictional Initiatives.....	25

LIST OF TABLES AND FIGURES

Table 1 – Sustainable Transportation Definitions (by jurisdiction)	9
Table 2 – Sustainability Frameworks (by jurisdiction)	10
Table 3 – Responsible Departments (by jurisdiction).....	11
Table 4 – Common Sustainable Transportation Initiatives	19

EXECUTIVE SUMMARY

The Sustainable Transportation Task Force (STTF) has prepared this paper which provides an overview of the range of approaches and activities/initiatives currently taking place in Canada, across federal, provincial and territorial jurisdictions. The focus of the paper is on the Departments responsible for transportation, in consideration of the report being furnished for information of the Policy and Planning Support Committee of the Council of Deputy Ministers Responsible for Transportation and Highway Safety.

The STTF collected information from federal/provincial/territorial transportation departments across Canada to identify how jurisdictions approach the issue of sustainable transportation and to identify/inventory the range of sustainable transportation actions currently underway. This information helped to identify common practices being undertaken across the country yet also showcases and reflects the important regional and local differences that influence Canadian transportation systems.

A cross-Canada survey of provincial and territorial transportation departments was undertaken to determine the extent to which “sustainability” criteria are built into their goals, objectives and initiatives. Results of the survey find that among these jurisdictions, there is a diverse mix of departments that are responsible for transportation functions, and an equally diverse set of initiatives designed to promote sustainable transportation. Excluded from this overview is information that has not been collected from municipal governments, institutions, private activities and other organizations in Canada who promote or undertake sustainable transportation. The information in the report is valid as of March 2009.

1. INTRODUCTION

The Sustainable Transportation Task Force (STTF), chaired by Manitoba Infrastructure and Transportation, was established by the Policy and Planning Support Committee (PPSC) of the Council of Deputy Ministers, and is comprised of government officials representing transportation departments in their respective jurisdictions. Its purpose was to assess the status, and enhance the understanding of sustainable transportation among federal, provincial and territorial jurisdictions. The STTF was assigned the responsibility of developing a paper that provided a summary/inventory to highlight what is currently taking place in Canadian jurisdictions from a sustainable transportation perspective.

The STTF requested that member jurisdictions provide an overview of sustainable transportation taking place across the country. A questionnaire was sent to each member and requested information on whether a jurisdiction had a working definition of sustainable transportation, an overall sustainability framework, and to provide information on the various sustainable transportation initiatives implemented nationally, provincially, and territorially. This information helps to identify common practices being undertaken across the country yet also showcases and reflects the important regional and local differences that influence Canadian transportation systems. Chapter 2 and Appendix C provide detailed information on existing sustainable transportation activities across Canada.

2. TOWARDS SUSTAINABLE TRANSPORTATION IN CANADA: RESULTS OF A NATIONAL SURVEY

For the purposes of providing some conceptual clarity of the varied approaches and activities for the understanding of senior decision-makers across the Transportation departments, this paper will from time to time divide sustainable transportation activities into three general categories:

➤ Technological:

This includes initiatives that utilize or encourage new and emerging technologies designed to make transportation systems more efficient. One example is the changes in road construction activities in numerous provinces that have enabled the recycling of asphalt, and the reduction of harmful chemicals.

➤ Policy/Regulatory:

These initiatives include policies, acts, regulations and other instruments that encourage and set a systematic framework for future action. There are a wide variety of such instruments emerging from all levels of government.

➤ Behavioural/Social:

There are many initiatives that work towards influencing behavioural and social changes. Some examples are direct results of government partnerships with non governmental organizations (NGOs). These non profit agencies do grassroots work with communities to inspire behavioural change and promote public education about sustainability issues.

The remainder of this chapter will focus on:

- Jurisdictional definitions of sustainable transportation;
- Overall sustainability frameworks;
- Organizational responsibility for sustainable transportation; and,
- A review of the various sustainable transportation initiatives being undertaken across each jurisdiction.

2.1 Definitions/Sustainability Frameworks/Responsible Departments

2.1.1 Jurisdictional Definitions

A scan undertaken by the STTF indicates that no internationally or nationally set or established definition of sustainable transportation exists, and that jurisdictions across the globe have interpreted the concept in varied ways. For the purposes of exposing senior decision makers to a treatment of the varied definitional approaches to the concept, several distinct definitions are provided in Appendix B.

- Economic Definition
- Environmentally and Socially Sustainable Definition
- The Centre for Sustainable Transportation's (CST) Synthesized Definition

Upon reviewing the submissions provided by the responding jurisdictions, it was determined that only two jurisdictions, Nova Scotia and Manitoba, reported having a formal, approved definition of sustainable transportation. Both of these provinces use the Centre for Sustainable Transportation (CST) definition. Alberta is reviewing definitions including those used by New Zealand, CST and Transport Canada. Newfoundland and Labrador, along with Quebec, have legal definitions of sustainable development and the ministère des Transports (MTQ) intends to use the definition of the CST on the way to sustainable mobility in their Strategic Plan 2008-2012.

Transport Canada has a draft definition of sustainable transportation, which was developed using European Union (EU), CST and other definitions as a basis. Transport Canada situates sustainable transportation not only within the context of the World Commission on Environment and Development (WCED)'s definition of sustainable development from *Our Common Future* (1987), but also within a government-wide Sustainable Development agenda.

The Northwest Territories reported that they were working on developing their own definition. Differences between jurisdictions in terms of how they view/approach sustainable transportation are often born of circumstances. The following table provides a summary of jurisdictions' adoption, if any, of sustainable transportation definitions.

Table 1. Sustainable Transportation Definitions (by jurisdiction)

Jurisdiction	Formal Definition	Characteristics
Alberta	No	NZ, CST and TC definitions being considered
British Columbia	No	Includes environment, economic, and regional growth strategies
Manitoba	Yes	CST
New Brunswick	No	Safe sustainable transportation is in the Vision statement of the strategic plan
Newfoundland and Labrador	No	Sustainable Development is folded into Sustainable Development Act
Northwest Territories	Developing a definition within Environmental Strategy	Strategy includes vision, principles, and goals.
Nova Scotia	Yes	CST
Nunavut	N/A	N/A
Ontario	No	Sustainability themes as focus areas (for example, multi-modal transportation)
Prince Edward Island	No	Consider Social, Environmental and Economic Sustainability in decision making
Québec	Sustainable Mobility within Strategic Plan 2008-2012 and in the Strategy and the Action Plan on Sustainable Development 2009-2013	Sustainable Development is folded into Sustainable Development Act The definition of the CST is uses to guide the approach to sustainable mobility
Saskatchewan	No	Meeting needs, sustaining infrastructure, ensuring safety, affordability, efficiency,
Yukon	Not yet created YK-specific definition	N/A
Federal Government (Transport Canada)	Yes	Combination of CST, EU and other definitions

2.1.2 Jurisdictional Sustainability Frameworks

Many provinces did not situate sustainable transportation measures within the larger umbrella of a sustainability framework. Alberta reports the framework is found within Alberta's vision for the future that emphasizes prosperity, sustainability and community. Manitoba, Quebec, Newfoundland and Labrador, and The Northwest Territories' directives are consistent with the provisions of each province or territory's Sustainable Development Act or Policy. In Ontario, the Environmental Bill of Rights (EBR) requires designated ministries to prepare Environmental Statements of Values to guide their work. The Ministry of Transportation is also undertaking to develop a Sustainability Strategy that will help integrate the principles of sustainability into day-to-day operations and decision-making to ensure that programs, policies and business practices take into account social, economic and environmental impacts.

As indicated previously, a few jurisdictions have produced strategic plans that address Sustainable Development. Other more broadly based strategic plans address sustainable transportation, energy, climate change, transit planning, active transportation, intelligent transportation systems, transportation industry efficiency as part of a high level operational mandate. The following table outlines the framework within which each jurisdiction's sustainability measures can be found.

Table 2. Sustainability Frameworks (by jurisdiction)

Jurisdiction	Sustainability Framework	Process
Alberta	Alberta's vision for the future- Prosperity, sustainability and community	Framework included in Government's strategic business plan, with stewardship as one of the shared values that Albertan's hold to support the vision
British Columbia	Strategic Plan and Climate Action Plan	Responsibility of each provincial department
Manitoba	MB Sustainable Development Act	N/A
New Brunswick	Strategic Plan and Climate Change Action Plan	Annual reports on progress for each plan Adoption of ISO standards of measurement for projects to reduce greenhouse gas emissions.
Newfoundland and Labrador	Sustainable Development Act	A Sustainable Development Management Plan with accompanying Sustainability Indicators is currently under development. Also under development is a conflict resolution mechanism which will provide a mechanism for integrating sustainable development principles into all government decision-making processes.
Northwest Territories	Sustainable Development Policy	Transportation is developing an environmental strategy to make the environment an integral part of all decision making and operations
Nova Scotia	Climate Change Action Plan	Climate Change Action Plan identifies the Department of Transportation and Infrastructure Renewal as the lead department in developing a Sustainable Transportation Strategy by 2010
Nunavut*	N/A	N/A
Ontario	Environmental Bill of Rights, numerous policy and planning documents	Developing a sustainability strategy for the Ministry of Transportation (MTO)
Prince Edward Island	Energy Strategy and Climate Change Strategy	N/A
Québec	Sustainable Development Act Government Sustainable Development Strategy 2008-2013	MTQ is also developing a strategic plan 2008-2012; Sustainable development strategy and Sustainable development action plan 2009-2013. Progress for each document in annual Report of ministère des Transports
Saskatchewan	Sustainable transportation infrastructure is one of the strategic goals for the Ministry of Highways & Infrastructure	N/A
Yukon	None	N/A
Federal Government (Transport Canada)	Sustainable Development Strategy (SDS), ecoTRANSPORT Strategy, Departmental mission/mandate/vision Federal Sustainable Development Act	SDS updated every three years. Annual reports are produced for the SDS as well as reports on progress of the ecoTRANSPORT Strategy and other initiatives.

2.1.3 Organizational Responsibility

Most jurisdictions have departments that are responsible for transportation (AB, ON, QC, NWT), although these are often combined with either Infrastructure (BC, MB), Highways (SK), Public

Works (PEI, NL) departments, or a combination (Yukon Department of Highways and Public Works or Nova Scotia's Transportation and Infrastructure Renewal). However, it is the very profusion of divisions and branches combined with a wide range of interdepartmental collaborations that makes establishing a consistent pattern of governance something of a challenge. Alberta has a senior policy advisor position focusing solely on environmental issues that has been in place for over a decade. In Ontario, a Sustainable Transportation Policy Office has been created in the Ministry of Transportation's Policy and Planning Division while BC has its provincial transit agency (BC Transit) that reports to the Minister. Since December 2008, Québec has had a sustainable development service in addition to an environment service as a result of a restructuring of the research and environment branch of the Ministère des Transports.

Because transportation affects so many sectors in society, this is sometimes reflected in governance. For example, Manitoba Infrastructure and Transportation collaborates with the Department of Science, Technology Energy and Mines to address climate change and alternative fuels for transportation, as well as Agriculture Food and Rural Initiative (to develop the province's bio-fuel industry). In BC, Ministries of Environment and Community Development also contribute to sustainable transportation efforts of the Ministry of Transportation. In Québec, the ministère des Transports works in partnership with the MDDEP (ministère du Développement durable, de l'Environnement et des Parcs), MDEIE (ministère du Développement économique, de l'Innovation et de l'Exportation), MNRF (ministère des Ressources naturelles et de la Faune) and MAMR (ministère des Affaires municipales et des Régions). In Newfoundland and Labrador, the Department of Environment and Conservation leads the overall sustainable development program in the province but works with Transportation and Works along with Government Services on developing/implementing sustainable transportation initiatives.

The recognition that people are concerned about climate issues has influenced the actions of governments. More than one government is moving towards more sustainable transportation practices because they know there is an expectation on the part of the public for governments to act. The following table highlights the primary transportation departments/divisions/branches responsible for sustainable transportation and the various partner departments.

Table 3. Responsible Departments (by jurisdiction)

Jurisdiction	Lead Department	Additional departments or organizations
Alberta	Transportation	Environment
British Columbia	Ministry of Transportation and Infrastructure	Ministry of Environment, Ministry of Community Development
Manitoba	Infrastructure and Transportation	Science Technology Energy and Mines, MB Agriculture, Food and Rural Initiative
New Brunswick	Department of Transportation	Department of Environment, Efficiency NB
Newfoundland and Labrador	Department of Environment & Conservation	Department of Transportation and Works; Department of Government Services; & Department of Natural Resources
Northwest Territories	Department of Transportation	
Nova Scotia	Department of Transportation and Infrastructure Renewal	Department of Energy, Department of Environment, Conserve Nova Scotia, Health

Jurisdiction	Lead Department	Additional departments or organizations
		Promotion and Protection, Tourism, Culture and Heritage, Service NS and Municipal Relations, and the Union of Nova Scotia Municipalities
Nunavut*	N/A	N/A
Ontario	Sustainable Transportation Policy Office, Ministry of Transportation	Ministry of Environment; Ministry of Energy and Infrastructure; Climate Change Secretariat
Prince Edward Island	Department of Transportation and Public Works	N/A
Québec	MTQ (ministère des Transports)	MDDEP (ministère du Développement durable, de l'Environnement et des Parcs); MDEIE (ministère du Développement économique, de l'Innovation et de l'Exportation); MNRF (ministère des Ressources naturelles et de la Faune); MAMROT (ministère des Affaires municipales, des Régions et de l'Occupation du territoire)
Saskatchewan	Ministry of Highways and Infrastructure	Ministry of Environment
Yukon	Transportation Division within Department of Highways and Public Works	Department of Environment
Federal Government	Transport Canada	Environment Canada, Natural Resources Canada, Infrastructure Canada, Industry Canada, Public Health Agency

2.2 Jurisdictional Initiatives and Best Practices

Most jurisdictions in Canada are engaged in a very wide variety of programs. For example, BC, Québec, Ontario, and Nova Scotia report extensive and diverse programming and initiatives aimed at influencing modal choice and active transportation (eg. BC's provincial cycling policy and Ontario/Québec's significant transit investments). In Saskatchewan, government initiatives are more oriented to the development of infrastructure (e.g., highways) while in the Northwest Territories and Yukon, several initiatives reflect Northern concerns and circumstances (a focus on energy conservation, often in remote settings).

Many of the initiatives emerging from provincial governments focus on policy creation and lead-by-example measures. However, a wide range of activities exist in each province or territory's non-profit sector. These include the Ecology Action Centre in Nova Scotia, Resource Conservation Manitoba, numerous Lung Associations, and other organizations that support transit pass programs, vehicle scrappage programs, active transportation and education initiatives (e.g. Commuter Challenge, Bike Week).

2.2.1 Alberta

In July 2008, Alberta announced the Green Transit Incentives Program (**GreenTRIP**), which provides \$2 billion in capital funds for local, regional, and inter-city public transit. The program is part of Alberta's updated climate change strategy announced in January 2008. **GreenTRIP**

will accelerate the expansion of public transit projects, that may include Light Rail Transit (LRT) that has been significant, in both Calgary, where the trains are powered by wind-generated energy, and Edmonton. The province is also running a late-model car scrappage program. In addition, Alberta is also carrying out commercial vehicle inspection and maintenance programs, and is “right sizing” their provincial fleet. Like many other jurisdictions, the government is paying attention to sustainable construction practices. Alberta is participating in the TAC (Transportation Association of Canada) Green Guide for Roads Task Force developing a compilation of best practices in road construction and maintenance that have environmental benefits. Alberta Transportation has an Environmental Management System (EMS) that guides all departmental activities including the work done by contractors to build and operate the transportation infrastructure the Alberta Government funds. Alberta Transportation administers grant programs that provide capital funding to municipalities for projects that may include sustainable transportation, depending on the municipality’s capital spending priorities. The province has also partnered with several agencies: the Alberta Motor Transport Association has signed a memorandum of understanding with Transportation and Environment to address reducing greenhouse gas emissions; the Clean Air Strategic Alliance, a non-profit agency, co-funded the Roadside Optical Vehicle Emissions Reporting (ROVER) project; and the public-private partnership Climate Change Central led Alberta’s pilot project on hybrid taxis.

2.2.2 British Columbia

In British Columbia, sustainable transportation efforts include funding for a Cycling Infrastructure Partnership Program, as well as other active transportation facilities, and support for cycling promotion activities like Bike to Work Week. The province has also funded trials for hybrid diesel electric buses and plans to purchase hydrogen fuel cell buses. Meanwhile, construction is nearing completion for a rail-based rapid transit line linking central Richmond, the Vancouver International Airport, and Vancouver with the province contributing \$635M towards construction of the line. Other transit programs include universal transit pass (U-Pass) programs at universities and employee transit pass programs in the Victoria region. Implementation of high-occupancy vehicle (HOV) and bus-only lanes in the Lower Mainland have also resulted in considerable improvements to transit efficiencies.

2.2.3 Manitoba

Manitoba’s sustainable transportation approach is guided by critical legislation and policy documents, such as the government report *Beyond Kyoto—Manitoba’s Action Plan on Climate Change (2008)*, and the *Climate Change and Emission Reduction Act (CCERA)*. The CCERA, passed in 2008, for example, establishes a framework for the future regulation of low-speed vehicles; measures for the prescription of a fuel efficiency standard and alternative fuel use for the provincial government vehicle fleet; and measures to reduce older (and therefore less emissions-friendly) vehicles in the private fleet. The CCERA also establishes measures for the prescription of a fuel efficiency standard for the private fleet, and commissioned a Vehicle Standards Advisory Board to provide recommended direction to the government on this matter.

The Vehicle Standards Advisory Board, in reporting to government in 2009, has recommended introducing the California Air Resources Board model for emission reductions pending approval in the United States and an economic analysis on the impact on retailers in Manitoba. The Board also identifies further methods to encourage consumers to purchase low-emitting vehicles, an action already supported by a provincial rebate program for hybrid electric vehicle purchase.

Early actions on the government fleet have focused on “right-sizing” the fleet, increasing the number of hybrid and flex-fuel vehicles in provincial operations, and the introduction of an E85 fuelling station for provincial flex fuel vehicles. Furthermore, the province has established a biodiesel preferential use policy for provincial heavy duty and related diesel equipment. *Beyond Kyoto* also identified a future provincial commitment to improve the energy efficiency of Manitoba’s heavy trucking industry.

2.2.4 New Brunswick

New Brunswick supports ongoing efforts to reduce GHG emissions. In 2007, a five year Climate Change Action Plan was released that set GHG reduction targets for the transportation sector. In conjunction with the Department’s Strategic Plan, significant progress to greater system and fleet efficiency has been made. New Brunswick is moving forward with a new Intelligent Transportation Systems (ITS) strategic plan by building on Road Weather Information, Weigh in Motion and traveller information networks. Investments in public transit and a public transit strategy development are underway. A green vehicle and anti idling policy for the government fleet is in place. As part of fleet efficiency, a hybrid school bus is being tested as well as the use of bio fuels in school buses, heavy equipment and light vehicles with the goal to evaluate optimal engine performance. A program to install fuel efficient engines on ferries is underway as well as a switch to LED lighting. In partnership with the private sector, a number of projects in both the trucking and rail sectors are underway to evaluate lower fuel consumption and GHG reductions. New Brunswick recently allowed new generation single tires and Long Combination Vehicles to operate under special permit. As part of system efficiency, New Brunswick continues to invest in highway infrastructure and border crossings to reduce congestion and improve safety.

2.2.5 Newfoundland and Labrador

The Government of Newfoundland and Labrador (GNL) has undertaken a number of sustainable transportation initiatives including a Salt Management Plan, idle free campaigns, active transportation programs, and increased use of more sustainable construction materials and methods. GNL is actively involved in the New England Governors-Eastern Canadian Premiers Climate Change Committee, and the Standing Committee on Transportation and Air Quality. A noteworthy achievement is that the Gander International Airport has won the distinction of being the first carbon neutral airport in North America. The airport authority and its tenant companies are implementing a carbon emissions reduction program involving infrastructure and employee initiatives, and the remaining emissions will be offset by the purchase of credits from a climate consulting business.

2.2.6 Northwest Territories

The Northwest Territories (NWT) faces many unique challenges in the operation of a sustainable transportation system including harsh climate, geographic distances between communities and markets, a sparse population, lack of transportation infrastructure, limited construction season, sensitivity of the environment and developing economy. There is general agreement that climate change is occurring at an unprecedented rate in the Arctic and that despite any mitigation efforts, the effects of climate change will be felt for decades to come. As a result, the Government of the NWT (GNWT) has developed a number of policy documents that focus on sustainability. These various policy documents include a Sustainable Development Policy, an Energy Conservation Policy, an Energy Use Action Plan, Environmental Strategy, a Greenhouse Gas Strategy, and a descriptive report entitled *Climate Change and Transportation in the Northwest Territories*.

2.2.7 Nova Scotia

In Nova Scotia, there are several departments actively involved in different aspects of sustainable transportation. The Department of Transportation and Infrastructure Renewal (TIR) is involved in activities which are related to the construction and maintenance of transportation infrastructure in the province. These include: development/implementation of a Salt Management Plan, anti-idling signage, fleet greening, increasing use of ITS (Weigh-In-Motions, Road Weather Information Systems), driver training in sustainable driving and maintenance practices, and sustainable highway construction and maintenance methods. Other departments have been involved in other projects, such as the promotion of active transportation (including the development of a provincial strategy), public transit funding (i.e. Bus Rapid Transit projects), E-pass and U-pass public transit programs, and general promotion of energy efficiency and sustainable transportation practices. The Province's recently released *Climate Change Action Plan* and Energy Strategy renewal will provide future direction. The Province has also provided funding and support to various NGOs to carry out programs (i.e. sustainable transportation project funding in rural areas) and research related to sustainable transportation.

2.2.8 Ontario

Ontario has implemented a number of activities that reflect sustainable transportation principles including making two cents per litre of provincial gas taxes available to municipalities for public transit and funding GO Transit, an inter-regional commuter train and bus service. It is also developing the PRESTO Fare Card System - a seamless, secure and cost-effective transit fare collection system that will help riders travel across nine different transit systems. The Government of Ontario has also established Metrolinx, which is developing a regional transportation plan for transit and major roads in the Greater Toronto Area and Hamilton. The province has also seen significant promotion of carpooling (there are now almost 80 carpool lots), the introduction of High Occupancy Vehicle Lanes on Ontario's highways, and planning for a long-term network of HOV lanes. Pilot projects for alternative vehicles, including electric bicycles, Segway™ vehicles, and Low Speed Vehicles are underway. The province has established the Green Commercial Vehicle Project that provides incentives towards the purchase of alternative fuel vehicles and anti-idling devices for medium and heavy duty trucks.

2.2.9 Prince Edward Island

The Government of PEI has initiated several sustainable transportation actions and practices. These initiatives include: 'right-sizing' the government vehicles fleet and locating equipment closer to work areas to minimize travel distances; application of a road salt management plan to minimize the effect of road salt on the environment; offering a provincial sales tax rebate up to \$3000 for the purchase or lease of hybrid vehicles; expansion of public transit initiatives in Charlottetown; and adoption of more sustainable construction practices.

2.2.10 Québec

Québec has entrenched the concept of sustainability throughout government via the *Sustainable Development Act* to better integrate the pursuit of sustainable development into the policies, programs and actions of the government, and to ensure, in particular through the establishment of a set of principles and a sustainable development strategy, that government actions in this area are coherent. To oversee this, an Assistant Auditor General has been appointed to serve in an auditory capacity as a Sustainable Development Commissioner. In terms of transportation, the ministère des Transports is developing a Sustainable **action plan** and a Sustainable development **strategy** that will embrace the social, economic and environmental considerations.

Québec has introduced/implemented a number of sustainable transportation initiatives. Four primary actions include: A) *Québec Infrastructure Plan 'Foundations for Success'*; B) *Climate Change-A Challenge for the Future Action Plan*; C); Québec Energy Strategy 2006-2015 '*L'énergie pour construire le Québec de demain*' and D) '*The Québec Public Transit Policy*'. The objective of the *Québec Infrastructure Plan* is to make investments and emphasize the rehabilitation of all infrastructure including transportation systems, so that infrastructure continues to serve the interests and well being of future generations. Quebec has taken various actions in connection with this road network investment plan that fit in with the vision of sustainable mobility. The *Climate Change-A Challenge for the Future Action Plan* focuses on addressing the issue of greenhouse gases from a number of perspectives, one of which is transportation. The plan's transportation elements include emphasizing transit/alternative modes, energy efficiency improvements in freight transportation, and internal transportation demand management (TDM) strategies to reduce GHG emissions generated by employee commuting. The Energy Strategy shows the path that Québec will be taking over the next ten years and it immediately triggers initiatives that will help prepare for the future. Finally, the *Québec Public Transit Policy* consists of several transit initiatives, including funding for rural transit programs and grant programs to improve accessibility, among others.

2.2.11 Saskatchewan

The Government of Saskatchewan has largely focused its sustainable transportation efforts on the maintenance and creation of a sustainable infrastructure system. One of the main policy initiatives is the expansion of the primary weight infrastructure system to allow heavier truck hauls. The expansion of primary weight will improve trucking efficiency and carbon emission

will be reduced for given amount of commodity. Another major policy initiative Urban Highway Connector program will promote mobility and continuity of highways through urban boundary, which will help reduce traffic fuel consumption and emission. Road salt management has been adopted and long term impact of road salt on environment has been monitored. The use of environmental friendly materials (such as recycled rubber tires) and techniques (such as recycling) in construction has been encouraged. Saskatchewan efforts also include the formation of partnerships with rail services and an air travel policy unit. A Transportation Partnership Program has been developed that allows trucks to increase their weight loads in exchange for coverage of incremental costs. Other initiatives in Saskatchewan include the Northern Transportation Strategy.

2.2.12 Yukon

Some of the examples of sustainable transportation practices initiated by the Yukon government include: A) An anti-idling campaign; B) Emphasis on more sustainable construction methods; C) Greening and 'right sizing' of the territorial fleet; and D) Proposed changes to trucking practices. In addition, Yukon has created numerous road and weather information sites that share information about driving conditions.

2.2.13 Canada

Transport Canada (TC) is committed to promoting a sustainable transportation system for Canada and is the lead department for sustainable transportation within the Federal Government. Examples of TC initiatives include:

- The development of a Sustainable Development Strategy every three years;
- Environmental Programs
 - The ecoTRANSPORT Strategy includes such programs as:
 - ecoFREIGHT;
 - ecoTECHNOLOGY for Vehicles Program; and
 - ecoMOBILITY.
 - Other departmental programs include the:
 - Urban Transportation Showcase Program; and
 - Moving On Sustainable Transportation Program.
- Sustainable transportation infrastructure investments through the *Building Canada Plan*;
- An Environmental Management System; and,
- Research and Development initiatives.

In addition, as part of the Government of Canada's regulatory agenda outlined in the *Turning the*

CONFIDENTIAL for discussion purposes only

Corner action plan released in April 2007, Transport Canada is developing new regulations that will limit emissions from new motor vehicles and railways operations. The department will also ensure that international emissions standards, to be developed by the international organizations mandated to address emissions from the marine transportation and aviation sectors, are applied domestically. Details on the regulatory framework are available at:
<http://www.ecoaction.gc.ca/turning-virage/index-eng.cfm>.

Table 4 provides a summary outlining the more common sustainable transportation actions being undertaken across Canada. More detailed tables comparing specific initiatives within each jurisdiction can be found in Appendix C.

Table 4. Common Sustainable Transportation Initiatives
(Listed alphabetically by jurisdiction, Transport Canada at far right)

	AB	BC	MB	NB	NL	NWT	NS	NU*	ON	PEI	QC	SK	YK	Canada
Programs/Initiatives														
Transit planning and funding	x	x	x	x			x		x	x	x	x		x
Active Transportation studies and programs		x	x	x	x		x				x			x
Fleet Greening/ "Right Sizing" of government fleets	x	x	x	x	x		x		x	x	x	x	x	x
Emissions/GHG Standards or strategies		x	x	x		X			x		x	x		x
Greener Ports and ferries		x		x	x	X					x			x
Road Salt Management		x	x	x	x	x	x		x	x	x	x		
Construction/traffic initiatives	x	x	x	x	x	x	x		x	x	x	x	x	
Freight Practices			x	x			x		x		x	x	x	x
Green Vehicle/ Vehicle Inspection Programs	x	x	x	x			x		x	x	x	x		x
Anti Idling	x	x		x	x	x	x		x		x	x	x	NRCan
Vehicle Scrappage	x	x	x	x					x					Environment Canada
Partnerships with NGOs	x	x	x	x	x	x	x		x		x	x		x

*Information on Nunavut is not available at this time

3. SUMMARY

3.1 Summary and STTF Considerations

Sustainable transportation addresses all modes of transport used to move people and goods. The cross-Canada survey reveals that the federal government, provinces and territories are all taking positive action towards sustainable transportation systems. Canadian jurisdictions have introduced and implemented sustainable transportation initiatives via several different approaches. These actions have formed a foundation that will enable and help streamline future initiatives. As the foundation continues to be built, the capacity for sustainable transportation measures will be strengthened.

There are many different approaches that governments can take to further strengthen and develop sustainable transportation practices. These approaches focus on both leadership and outreach functions and include the following.

3.1.1 Leadership Roles

➤ Cooperation Within and Between Government Departments

Improving access to mobility, increasing efficiency in passenger and freight movement, reducing energy use, emissions, and improving air quality require governments to approach transportation from a sustainable development perspective. This approach implies that there are some aspects of sustainable transportation policies, programs and projects that may extend beyond the mandates of transportation ministries. Shared leadership among departments is important for moving this agenda forward.

➤ Funding and Establishing Programs

Governments have a role in designing corresponding programs and funding arrangements that align with sustainable transportation policy. These programs and funding envelopes generate projects and stimulate internal and external action to implement and demonstrate sustainable practices in passenger and freight transportation systems.

➤ Establish Monitoring Programs

Governments have a role to assist assessing the “state of sustainable transportation”. Governments can help facilitate the collection of transportation data and participate in developing long-term measurement indicators, and reporting frameworks for transportation systems.

3.1.2 Outreach Roles

➤ Data/Information Sharing

A potential opportunity for governments is to provide or facilitate the development and dissemination of information about sustainable transportation. The information outreach would, at a minimum, outline the challenges transportation systems are facing and policy and program options available to government and non-government actors.

➤ Partnerships with Non-Government Agencies

A complementary goal for government is to identify what actions the public can take on their own without need of government support—for example, eco-driving, and fuel economy tips that complement sustainable transportation goals and objectives. Governments can partner with industry such as bus and vehicle manufactures, academia, and not-for-profit organizations to succeed in this.

Next Steps

Overall, as a next step, the STTF suggests that the Council of Deputies might consider establishing appropriate mechanisms to develop and implement a cross-national work plan in sustainable transportation, that is supportive and inclusive of all participating jurisdictions' unique circumstances and needs in sustainable transportation.

Building on the information collected in this report, the STTF will undertake work in three ideas: 1) Collaborative Project Identification; 2) Data Collection (Climate Change); and 3) Information Sharing System. Sub-groups made up from the jurisdictions participating in this task force will be assigned to work on each of these three elements and report back to the STTF.

APPENDICES

Appendix A – Acronym Bibliography

CST – The Centre for Sustainable Transportation
EST – Environmentally Sustainable Transportation
EU – European Union
GHG – Greenhouse gas
HOV – High Occupancy Vehicle
IPCC – Intergovernmental Panel on Climate Change
LSV – Low Speed Vehicle
OECD – Organization for Economic Cooperation and Development
PPSC – Policy and Planning Support Committee
SOV – Single Occupancy Vehicle
STTF – Sustainable Transportation Task Force
TDM – Transportation Demand Management
UN – United Nations
UNCED – United Nations Conference on the Environment and Development
WCED – World Commission on Environment and Development

Jurisdictional Abbreviations

AB – Alberta
BC – British Columbia
MB – Manitoba
NB – New Brunswick
NL – Newfoundland and Labrador
NWT – Northwest Territories
NS – Nova Scotia
NU – Nunavut
ON – Ontario
PEI – Prince Edward Island
QC - Québec
SK - Saskatchewan
YT – Yukon Territory
TC – Transport Canada

Appendix B – Proposed Definitions of Sustainable Transportation

The Sustainable Development goals adopted in *Agenda 21* are rooted in the 1983 Brundtland Commission and its 1987 report entitled *Our Common Future*. In these reports, sustainable transportation (also referenced as ‘sustainable transport’ or ‘sustainable mobility’) could be seen as the ability to meet present human mobility needs without compromising the ability of future generations to meet their needs. Due to its complexity, however, there continue to be attempts to further define sustainable transportation. Several definitions have been identified in existing literature and include the following

➤ *Economic Definition*

One thread is what might be called a literal economist’s definition. Two examples were presented at the seminal OECD International Conference “Towards Sustainable Transportation” held in Vancouver in 1996. Nelson and Shakow proposed that sustainable transport:

- is achieved when the total future discounted per-capita social costs, both market and non-market, related to the transport system are equal to or less than the costs in a selected reference year”. The essence of this definition, according to its authors, is that “increased costs are not passed to succeeding generations.

➤ *Environmentally and Socially Sustainable Definition*

Two versions of this definition have been proposed by the OECD during the course of its Environmentally Sustainable Transport project. The shorter version includes:

- an environmentally sustainable transport system is one that does not endanger public health or ecosystems and meets needs for access consistent with (a) use of renewable resources at below their rates of regeneration, and (b) use of non-renewable resources at below the rates of development of renewable substitutes.

The longer definition includes the following:

An environmentally sustainable transport system:

- allows generally accepted objectives for health and environmental quality to be met, for example, those concerning air pollutants and noise proposed by the World Health Organization (WHO);
- is consistent with ecosystem integrity, for example, it does not contribute to exceedances of critical loads and levels as defined by WHO for acidification, eutrophication, and ground-level ozone; and,

- does not result in worsening of adverse global phenomena such as climate change and stratospheric ozone depletion.

➤ *Synthesized CST Definition*

The Centre for Sustainable Transportation definition states that a sustainable transportation system is one that:

- allows the basic access needs of individuals and societies to be met safely and in a manner consistent with human and ecosystem health, and with equity within and between generations;
- is affordable, operates efficiently, offers choice of transport mode, and supports a vibrant economy; and,
- limits emissions and waste within the planet's ability to absorb them, minimizes consumption of non-renewable resources, limits consumption of renewable resources to the sustainable yield level, reuses and recycles its components, and minimizes the use of land and the production of noise.

➤ *New Zealand Ministry for the Environment Definition*

Sustainable transport is about finding ways to move people, goods and information in ways that reduce its impact on the environment, the economy, and society.

Appendix C – Tables of Jurisdictional Initiatives

The following tables summarize jurisdictional sustainable transportation initiatives. Jurisdictions are listed alphabetically by province or territory, and are followed by federal (Transport Canada) table of initiatives.

Summary of Provincial/Territorial Sustainable Transportation Actions – Alberta

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
Alberta's 2008 Climate Change Strategy (Ab Env)	Update of Announced Jan 2008	To reduce Ab GHG intensity	50% reduction in CO2 emission by 2050 (14% below 2005 level by 2050)	Being implemented	x	x	x	x	x
Green Transit Incentives Program (Green TRIP)	Announced July 2008 \$2B funding for transit	To invest in public transit To get cars off roads To reduce GHG emissions	Transit infrastructure, cars off roads and GHG reductions	Program being developed	x	x	x	x	x
Climate Change Adaptation Strategy	Strategy for adaptation to climate change impacts	To reduce Alberta vulnerability to climate change impacts	To be developed	Strategic framework going through approval process		x		x	
GHG MOU with Alberta Motor Transport Association	Agreement with industry organization and 2 GoA departments	To find and implement ways to reduce trucking GHG emissions	To be developed	Programs being developed and staff being hired	x		x		x
BioEnergy Program (Ab Energy lead)					x	x		x	
Energy Strategy (being developed by Ab Energy)					x	x		x	
Commercial Vehicle Inspection programs	Partners in Compliance and weigh station by-pass	Improve commercial fleet efficiency and maintain safety		Being implemented	x			x	
Intelligent Transportation (underway)	Real- time information	Improve transportation system operations		Being implemented	x			x	
"Right sizing" policy for GOA fleet						x		x	
LSV Pilot Project Banff & Jasper					x	x		x	x
Hybrid Taxi Pilot Project	Operated by Climate Change Central in Calgary	Promote awareness of technology		Implemented	x			x	x
Pilot projects Cleaner buses - Hybrid Diesel Electric Buses.		Promote awareness of technology		Implemented	x				x
Roadside Optical Vehicle Emission Reporting (ROVER) Vehicle Emissions Study	Repeat of similar study done in late 90's	Determine emissions from vehicles on road	Analytical report and findings	Informing potential policy options to reduce emissions from high emitting vehicles	x			x	
Federal "New Deal" funding utilization				Implemented		x		x	
EMS – Environmental Management Systems for Construction Practices	Ensure transportation projects meet existing environmental standards			Implemented	x			x	
Asphalt recycling					x		x	x	

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
Transportation Demand Mgt.	Reduce reliance on cars & relieve traffic congestion	Reduce reliance on cars & relieve traffic congestion	Transit ridership Cars off roads	Being implemented	x			x	x
U-PASS	Example of TDM program	Reduce reliance on cars & relieve traffic congestion	Transit ridership Cars off roads	Being implemented			x		x
Municipal Parking policies / pricing	Example of TDM program	Reduce reliance on cars & relieve traffic congestion	Transit ridership Cars off roads	Being implemented					
Multi Modal Planning Approaches				Implemented	x	x		x	
Carbon Offset Trading				Being implemented			x		x
Vehicle Scrappage Programs	Operated by Climate Change Central & partners			Implemented			x		x
PPSC-Sustainable Transportation Task Force				Implemented		x		x	
Upgrades to major highways / ring roads				Implemented	x				x
Numerous committees on Climate Change, Transportation, and Air Quality				Implemented		x		x	
TAC & Other Committees and Task Forces				Implemented		x		x	

Summary of Provincial/Territorial Sustainable Transportation Actions – British Columbia

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
Provincial Climate Change Action Plan (Transportation Component)	<p>The Action Plan contains actions intended to reduce GHG emissions by BC by all sectors by 33% by 2020.</p> <p>Transportation is the leading contributor greenhouse gas emissions in BC, accounting for approximately 36% of the 2006 total. Transportation is also the single largest source of personal GHG emissions, accounting for about 58% of average household emissions.</p>	<p>There are three basic types of actions in the Action Plan to reduce emissions from transportation:</p> <ul style="list-style-type: none"> - Improve the efficiency of vehicles - Reduce the carbon content in fuels - Decrease the number of kilometres driven 		<p>Some components of the transportation-related actions have been implemented, others are pending implementation pending further program development and consultation.</p>	X	X	X	X	X
Provincial Transit Plan	<p>By 2020, the Provincial Transit Plan calls for the provincial government and its federal and local government partners to commit \$14B to significantly expand transit in the Province and to double transit ridership.</p> <p>Of the \$11.1B in new funding, the Province is committing up to \$4.75B and is calling on the federal government for \$3.B, TransLink for \$2.75B and local governments for \$500m, along with supportive land use decisions.</p>	<p>The Plan involves investments by 2020 of:</p> <ul style="list-style-type: none"> - \$10.3B for four new and updated rapid transit lines serving communities across Metro Vancouver—the Canada Line, the Evergreen Line, the UBC Line and the upgraded and expanded Expo Line - \$1.2B for new RapidBus BC lines—energy-efficient, high-capacity buses on nine major routes in the high-growth urban centres of Kelowna, Victoria and Metro Vancouver. - \$1.6B for new, clean-technology buses to bolster the provincial fleet and provide communities with more frequent service to meet the needs of transit users 	<p>The Plan is designed to:</p> <ul style="list-style-type: none"> - Increase transit ridership across the Province to over 400m trips a year - Attract to transit a market share of 17% in Metro Vancouver by 2020, laying the foundation to attract 22% by 2030 - Reduce GHG emissions and other air contaminants from cars by 4.7m tonnes cumulatively by 2020 - Support increased population and employment densities near transit hubs and along transit corridors. <p>This change in urban form will, in turn, increase transit use and further decrease GHG emissions.</p>	<p>Some components of the Plan have been implemented, others are pending implementation pending further program development and consultation.</p>	X	X		X	X
Cycling infrastructure partnerships	<p>A provincially-administered grant funding program.</p> <p>Since 2006, BC has worked in partnership with communities to support the development of new cycling infrastructure. Local governments are eligible for up to \$250,000 in matching funds to promote transportation cycling (cycling to work, school or errands) to reduce traffic congestion and cut GHG emissions.</p>	<p>Promote transportation cycling (cycling to work, school or errands) to reduce traffic congestion and cut GHG emissions.</p>	TBD	<p>Funding program has been in operation since 2006.</p> <p>The program is very popular. Since the launch of CIPP, BC has fielded numerous requests from local governments across the province asking that the program continue and affirming the positive, tangible contributions the grant program makes towards infrastructure development that directly benefits communities.</p>		X	X	X	X
Vehicle Scrappage Programs	<p>With a 15\$m budget, this Program will help improve air quality and reduce GHG emissions by getting some of the most polluting vehicles off the road.</p> <p>Scrap-It is a voluntary program that provides incentives to trade in pre-1995, high-polluting vehicles for</p>	<p>Funding will go towards increasing the largest incentives up to \$2,250, which would apply to the choices with the largest GHG reduction, such as a hybrid car or transit passes. A base incentive of \$750 would apply to choices with low GHG-reduction benefits, and a new middle level incentive of \$1,250</p>	<p>It is expected the Program will scrap between 10,000-20,000 older vehicles over the next three years. If an average of three tonnes a year of CO2 is secured from 15,000 scrapped vehicles for a three-year remaining life, it would reduce CO2 emissions by an estimated 135,000 tonnes.</p>	<p>Since its inception, the Program has taken 6,510 vehicles of the road, and 5,951 incentives have been claimed. Of the incentives chosen, 2,920 have been transit passes, 2,060 have been claimed for the new vehicle incentive, and 641 have been claims for the used vehicle incentive. The remaining 330</p>		X	X	X	X

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
	cleaner kinds of transportation with lower emissions.	will be created. To qualify for the program, the vehicle to be "scrapped" must be a 1995 or older model, have been insured for the past year, and be driven to the collection point under its own power.		claims split the bicycle, West Coast Express, car sharing and van pooling incentives.					
Bike BC	Starting in 2008, \$31m will be invested over the next three years to help to make cycling a safe and attractive alternative transportation option for commuters. This investment will be further leveraged through cost sharing agreements with local governments. Additionally, the Provincial Gateway program includes a \$50m investment to construct cycling facilities on the Gateway corridors, and the Provincial Transit Plan will establish up to 1,000 bike lockers at key locations by 2020.	Signals a new level of provincial commitment to identify and build cycling facilities of regional and provincial significance while continuing to assist local governments to develop their networks. Bike BC compliment the Provincial Transit Plan in reducing traffic congestion and greenhouse gas emissions by providing convenient and attractive alternatives to car travel. Bike BC will also improve public health and fitness by promoting physical activity.	TBD	Program commenced in 2008.		x	x	x	x
Emission standards	The <i>Greenhouse Gas Reduction (Vehicle Emissions Standards) Act</i> , enacted in 2008 as a component of the BC Climate Action Plan, provides authority to establish additional elements of the California regime by regulation. The tailpipe GHG emission standards under this Act will come into effect when California starts to implement its regulations.	Tailpipe emission standards are an effective way of reducing GHG emissions associated with personal vehicles by encouraging manufacturers to sell a more fuel-efficient fleet of vehicles in BC. This in turn will lead to less money being spent on fuel in our province. These standards also preserve consumer choice by imposing emissions standards on the manufacturers to apply to the overall fleet; as a result, consumers are still able to purchase any type of vehicle they want, regardless of fuel efficiency.	TBD	Not yet implemented		x	x	x	
LocalMotion grants	A provincially-administered grant funding program. In 2006, BC established a \$40m LocalMotion fund to accelerate development of capital projects that make communities greener and healthier. The program provides matching funds to local governments investing in projects that encourage active, healthy and environmentally friendly living.	Specifically, the program supports projects that reduce greenhouse gas emissions by getting people out of their cars, encourage physical activity, and help ensure that communities meet the needs of seniors and people with disabilities.	TBD	The Program has funded dozens of projects around B.C., including the restoration of the historic Kinsol Trestle on Vancouver Island to make it safe for pedestrians and cyclists. Other projects include an indoor running track in Dawson Creek, a "rails to trails" pathway in Kelowna, a destination playground park in Salmon Arm, a hiking and mountain biking trail in North Vancouver, and a pedestrian/cyclist pathway in Nelson. In 2007, 26 communities received a total of \$17.3m from LocalMotion to build bicycle paths, trails and walkways, support community playgrounds and improve accessibility for people with		x	x	x	x

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
				disabilities.					
Anti-Idling initiatives	<p>Anti-idling regulations will be introduced for the public sector fleet for 2009. Similar measures will be extended province-wide by 2010. Finally, support will be provided to ensure that all communities have anti-idling policies in place by 2012.</p> <p>A further \$3m will support a new Green Lights Transportation Program. It will use technology to assess commercial vehicles for compliance with trucking regulations while they're moving, thereby avoiding the need to pull over and idle while they wait for inspections.</p>	Reduce vehicle idling as means to reduce GHG emissions	TBD	Not yet implemented		x	x	x	x
Funding for public transit	See "Provincial Transit Plan"								
Cleaner buses - Hybrid Diesel Electric Buses, Fuel Cell Bus project	<p>BC Transit is developing a fleet of 20 new fuel cell (hydrogen) buses to arrive beginning summer 2008.</p> <p>The development of a hydrogen bus fleet is part of BC's commitment to fuel cell technologies and the Hydrogen Highway.</p> <p>The total cost for the hydrogen bus fleet will be \$89m, with \$45m coming from the federal Public Transit Capital Trust fund and the remaining \$44m being provided by the Province and BC Transit.</p>	Research on hydrogen and hybrid vehicle applications encourages the transit industry to move toward this technology. A key advantage is that the technology does not impact existing infrastructure or daily business operations, providing a simple step toward improved performance.	TBD	<p>With respect to hybrid buses, BC Transit is projecting up to a 50% fuel reduction in stop and go applications, or 22,500 litres. An average bus uses 45,000 litres over a year, traveling 75,000 km. An additional maintenance savings of 30-50% is anticipated in maintenance costs of some major vehicle components.</p> <p>BC Transit has purchased three hybrid electric buses to replace aging buses in the Kelowna region. The hybrid technology reduces fuel consumption and greenhouse gas emissions by converting energy normally wasted in braking into electricity and using it to help accelerate the bus.</p>	x			x	x
"Greening" of provincial fleets	<p>Since 2006, BC has worked to ensure that new vehicles purchased or leased by government use hybrid technology. The government currently has 584 hybrid vehicles in its fleet. By helping to support the market for hybrids, BC is encouraging this highly-efficient technology and setting an example for business and individuals.</p> <p>BC has also invested \$500,000 in Green Fleets BC, a partnership initiative led by the Fraser Basin Council, to help reduce emissions from vehicle fleets of all kinds.</p>	Adopt clean vehicle technology as a means to reduce GHG emissions.	TBD	<p>In 2007, BC announced \$50m for the purchase of new, cleaner transit buses province-wide. A further \$10.6m has been provided to school districts to invest in clean-energy school buses.</p> <p>Regulations introduced in 2007 require retrofits of all heavy-duty diesel trucks made between 1989 and 1993. Diesel oxidation catalyst filters must be installed on these trucks by 2009.</p>	x	x		x	
Bike to Work Week	The main part of the campaign is a friendly challenge, in which employees at different work places	Bike to Work Week is meant to encourage people throughout BC to commute by bicycle.	TBD	In effect for several years.			x		x

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
	compete to have the most people commuting by bike. Bike to Work Week also includes cycling competitions, venues providing support and information for cyclists, and courses on cycling traffic skills.								
Provincial Cycling Policy	It is the goal of BC to integrate bicycling by providing safe, accessible and convenient bicycle facilities on the Province's highways and to support and encourage cycling. Cycling supports the Province's mandate to provide British Columbians with an integrated multi-modal transportation system.	Cycling benefits the Province's environment, its economy, the health of its people and society at large.	TBD	In effect for several years.		x	x	x	
Transit Travel Options Program	BC Transit's Travel Options program is to encourage and assist local employers to develop and implement a trip reduction strategy for their organization.	The objective of the Travel Options program is to encourage and assist local employers to develop and implement a trip reduction strategy for their organization.	TBD	In effect for several years.			x	x	x
High Occupancy Vehicle lanes	A High Occupancy Vehicle (HOV) lane is a specially designed lane that is designated for use by certain types of vehicles with specified number of occupants.	HOV lanes can move a greater number of people than a general traffic lane, and encourage carpooling and transit use, by providing travel time savings and a more reliable trip time. HOV lanes help to manage congestion, optimize the capacity of highway infrastructure, and reduce GHG emissions.	HOV vehicle growth in HOV lanes.	In effect since 1996.	x	x	x	x	
Development of "Green Port Policy"	BC is providing \$30m over three years for the BC Green Ports initiative, designed to reduce emissions from commercial trucks, and to fund port electrification, allowing ships to turn off their engines while in port.	Reduce port-related GHG emissions.	TBD	BC is also working on its first port electrification project – a partnership effort that will see the East Berth at Canada Place in Vancouver electrified. Discussions are also underway to determine the feasibility of electrifying a cargo berth at Deltaport. If these initial efforts are successful, the Province will look to further expand port electrification.	x	x		x	x
Air Care Program	The AirCare program was established in 1992 to significantly reduce air pollution in the Lower Fraser Valley. The program currently identifies over 45,000 - 50,000 excess emitting vehicles annually, and requires emissions repairs be performed prior to re-licensing and renewing insurance.	The AirCare program reduces automobile-generated emissions by identifying vehicles with emission defects and requiring they be repaired prior to re-licensing.		From 1992 to 2006, AirCare related repairs have reduced harmful emissions in the region by 31%.	x	x	x	x	
Air Care On Road Program (ACOR)	ACOR is a mobile inspection program operated by BC. Teams of certified ACOR inspectors run roadside tests of heavy-duty diesel vehicles, looking for excessive	ACOR protects public health and helps provide safe, clean air by enforcing British Columbia's diesel emission standards.			x	x	x	x	x

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
	smoke emissions. If a vehicle fails to meet these standards, the operator may be ordered to have the vehicle repaired and retested, and the operator may be ticketed for violation of diesel emission standards under the Motor Vehicle Act Regulations.								
Truck Stop Electrification	BC is supporting the development of plug-ins at key truck stops. This will help to further reduce GHG emissions from idling diesel engines. BC will work to expand the initiative allowing heavy-duty trucks to plug in to electrical outlets instead of idling their engines.	Reduce GHG emissions	TBD	Not yet implemented	x			x	x
Carbon Tax	BC implemented a carbon tax on July 1, 2008 on all fossil fuels. The tax has the advantage of providing an incentive without favouring one way to reduce emissions over another.	The purpose of the carbon tax is to encourage individuals and businesses to make more environmentally responsible choices, reducing their use of fossil fuels and related emissions. Business and individuals can choose to avoid it by reducing usage, increasing efficiency, changing fuels, adopting new technology or any combination of these approaches. A higher price for higher-carbon choices also makes greener options more commercially viable, thereby encouraging businesses and entrepreneurs to develop innovative solutions that offer consumers and business affordable, lower or no-carbon emission alternatives.	TBD	Implemented July 1, 2008		x	x	x	
PST exemption for hybrid and fuel-efficient vehicles	BC has waived the Provincial Sales Tax on hybrid vehicles since 2002, saving buyers up to \$2,000. A similar sales tax exemption is now also in place for alternative-fuel vehicles, saving buyers up to \$2,000. All vehicles that qualify for the federal government's Eco-Auto Rebate will also be GST exempt until the end of 2008. With the two programs combined, British Columbians could save up to \$4,000 on the purchase of a fuel-efficient vehicle. The PST exemption has also been extended to include other environmentally friendly forms of transportation, including electric-		TBD			x	x	x	x

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
	assisted bicycles, scooters and electric motorcycles.								
Low Speed Vehicles	BC amended Motor Vehicle Act Regulations to officially recognizing zero emission electric vehicles. This regulation allows the vehicles to travel without flashing lights and warning signage on certain roads with a maximum posted speed of 50 km/h where appropriate and safe.	Encourage use of electric vehicles	TBD	BC will work with municipal partners and industry stakeholders to explore opportunities to pilot the use of zero emission electric vehicles in areas they are well suited for, such as parks, ferry terminals, university campuses, airport terminals and resort communities.	x		x	x	
“Green” taxi fleet	As part of BC’s plan to take action on climate change, a new emphasis will be placed on promoting eco-friendly taxis in the Vancouver and Victoria areas. The Province has requested that that all approvals of applications for taxis in the Greater Vancouver Regional District (GVRD) and the Capital Regional District (CRD) be for eco-friendly vehicles (hybrid or other highly energy efficient vehicles) only. This would extend to approvals for new licenses or additional vehicles under current licenses in the GVRD and CRD.	Encourage adoption of green vehicles for taxi industry	TBD	There are two initiatives currently in place that would make the requirement economically feasible for taxi companies. The first is the B.C. tax exemption for alternative fuel vehicles, which reduces the PST by as much as \$2,000 for a new hybrid electric vehicle. This program is eligible to new vehicles purchased or leased before April 1, 2011. The federal government has also established the ecoAUTO Program, which offers rebates for listed ecologically friendly vehicles of up to \$2,000.	x	x	x	x	x
Target commercial vehicle emission reduction device retrofit	In 2007, BC announced that commercial diesel vehicles will be required to be retrofitted with emission reduction devices beginning in 2009. The diesel retrofit requirement will apply to commercial diesel vehicles that are between the model years of 1989 and 1993 and have a licensed gross vehicle weight of 5,000 kg and over. Recreational vehicles, motor coaches, pickup trucks, construction equipment and unlicensed non-road vehicles will be exempt. BC is considering expanding this requirement in the future, to include additional model years beyond 1993.		TBD	Not yet implemented	x	x		x	x
Border crossing initiatives	BC has been and will continue to be collaborating with the U.S., Canada, Washington State, and many other partners in a variety of initiatives to improve the efficiency, reliability, security, environmental sustainability and safety of transportation to/from and at the border crossings.	Border Greening Project is the implementation of a BC “Green Ideas Shine” submission to achieve significant GHG emissions reduction at the border by reducing unnecessary idling of queuing vehicles.	TBD	The project is on-going at an estimated cost of \$1.3m. The State of Washington expressed considerable interest in participating in joint border greening. As such, a Memorandum on Greening the Border was signed during the BC-Washington Joint Cabinet Meeting in June 2008				x	x
Low carbon fuel	BC passed enabling legislation to	There are many possible paths for	BC is targeting at least a 10%	Not yet implemented		x	x	x	

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
standard	adopt a low-carbon fuel standard in 2008 through <i>The Greenhouse Gas Reduction (Renewable and Low Carbon Fuel Requirements) Act</i> . Fuel distributors will be required to measure the average global warming intensity of their products and reduce it over time. Industry will determine how best to meet the standard.	compliance, including biofuels, electricity, hybrid vehicles, flex-fuel vehicles and fuel cells. Carbon intensity can also be reduced at refineries, through actions that improve efficiency and reduce on site greenhouse gas emissions. The lifecycle approach will encourage the development of biofuels with lower upstream emissions. These include ethanol from agricultural wastes, forest residues and perennial grasses. This initiative is also supported by the Province's new Bioenergy Strategy.	reduction in the average carbon intensity of transportation fuels by 2020.						
Vanpools and ridesharing	Vanpooling is a specialized transportation service which serves longer distance commute trips to and from areas not served by conventional transit. BC Transit currently provides administrative funding and support for the Jack Bell Foundation's vanpools outside the Vancouver area, primarily in the area surrounding greater Victoria.	Provide administrative funding, support and promotion for ridesharing	Increase in number of vanpool and carpools	There are about 35 vanpools operating.			x	x	x
SMARTTEC travel emission reports for provincial government employees	BC introduced a new requirement to calculate and report greenhouse gas emissions from provincial government business travel effective April 1, 2008. Roles and responsibilities for employees and expense authorities are expanded to include requirements to complete and approve travel emission reports. The Emissions Calculator – tracks GHG emissions from all government travel and will be used to calculate investments in the Pacific Carbon Trust.	Support government's commitment to be carbon neutral for business travel, and to encourage ministries to consider alternatives to travel and methods of travel that mitigate the production of greenhouse gas emissions.	TBD	Implemented in 2008			x	x	
Pacific Carbon Trust	The Pacific Carbon Trust (PCT), a new BC crown corporation, has the potential to become a commercial Crown supplying offsets to government, industry and individuals.	The PCT will stimulate investment in B.C.-based, carbon credit funded projects and will also apply a measure of rigor to ensure the projects funded will result in a reduction of GHGs.	TBD	Not yet implemented		x		x	

Summary of Provincial/Territorial Sustainable Transportation Actions – Manitoba

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
PPSC-Sustainable Transportation Task Force	Manitoba is currently chairing the Sustainable Transportation Task Force (STTF) which is comprised of government officials representing transportation departments in their respective jurisdictions; objectives of the STTF includes developing an inventory of current sustainable transportation practices and developing a roadmap/next steps for ad	Objectives of the STTF includes developing an inventory of current sustainable transportation practices and developing a roadmap/next steps for advancing sustainable transportation in Canada	N/A	A discussion paper on sustainable transportation is nearing completion; the STTF has also started to discuss approaches/next steps for advancing sustainable transportation in Canada		x		x	
Participation in other committees and task forces	Manitoba is currently participating in a national TWGEE initiative focusing on energy efficiency technologies in long haul trucks	Objective of the TWGEE initiative is to develop an national approach on how to increase the use of energy efficient technologies for long haul trucking activities	N/A	A series of background papers and draft recommendations on 'next steps' have been developed		x		x	
Sustainable Development Act	Manitoba's Sustainable Development Act was given assent in 1997 and contains principles/guidelines, strategies, and other measures to guide sustainable development in the province	To encourage sustainable development practices throughout Manitoba				x		x	
Sustainable Transportation Policy Initiative	The Transportation Policy Division at Manitoba Infrastructure and Transportation currently oversees sustainable transportation activities and is working to entrench the concept of sustainability throughout the organization	To increase awareness and entrench sustainable practices throughout the Infrastructure and Transportation Department	N/A	A departmental workshop was held in June 2008 in which employees discussed various approaches for moving forward the sustainability concept throughout the organization		x		x	
Climate Change and Emission Reduction Act	The Climate Change And Emissions Reduction Act (CCERA) received royal assent from the Manitoba Legislature in June 2008	To introduce sustainable transportation and other measures that will enable Manitoba to reach its 2012 GHG reductions objectives	Reduction in GHG emissions from the transportation sector (approximately 1 Mt by 2012)	Several of the sustainable transportation initiatives identified in CCERA are currently being developed and are expected to be completed in early 2009		x		x	
Climate Change Strategy	<i>Beyond Kyoto</i> , Manitoba's updated detailed action plan, was released in April 2008; the plan focuses on expanding renewable energy, improving energy efficiency and reducing emissions from transport and agriculture sectors	To reduce Manitoba's GHG emissions by approximately 3 Mt by 2012	Reduction goals include Transportation: Up to 1 Mt Manitoba's large emitters: 650,000 tonnes Expanding clean energy: 670,000 tonnes Agriculture, forestry and community programs: 680,000 tonnes Future climate action investments — 250,000 tonnes or more	Several of the transportation initiatives contained in <i>Beyond Kyoto</i> are also contained in the CCERA and are being developed; other non-legislated initiatives are also currently being formulated		x		x	
"Greening" of provincial fleet	The provincial government will establish a standard for all	This policy will be legislated and extended to include		Preliminary background work has started on this initiative	x			x	

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
	newly purchased and leased light duty/passenger vehicles to meet high-efficiency and lower emissions ratings	efficiency or fuel-mix standards for heavy duty fleet vehicles, in conjunction with the province's biodiesel mandate by 2010		and is expected to be completed in 2009					
Vehicle Emission Standards	A CCERA based initiative featuring a 'Made-in-Manitoba' approach to ensure that a greater percentage of high-efficiency vehicles become part of the private fleet	To improve the overall fuel consumption and reduce GHG emissions of private fleet vehicles	N/A	A Vehicle Standards Advisory Board has been established to help determine an efficiency standard or emissions standard; work is expected to be completed by January 2009		x			
Transit funding	Enshrining in law a 50/50 funding partnership to ensure the province continues to pay half of transit's net operating costs including rapid transit.	To enhance public transit services in urban areas and reduce the GHG impacts of automobile travel by shifting travel demand to transit	N/A	Enshrined as part of CCERA assent		x			x
LSV Study	A CCERA based initiative to increase the uptake of zero emission vehicles	Reducing GHG emissions from automobile travel	N/A	Background research and consultations have occurred; options are currently being evaluated as to the next steps; regulations allowing LSVs in Manitoba may be implemented in early 2009		x		x	
Biodiesel Policy	The Manitoba government is establishing a first-of-its-kind biodiesel mandate which follows the ethanol mandate which became effective in 2008	To encourage the use of renewable fuels in Manitoba	N/A		x	x			
Salt Management Strategy					x			x	
Asphalt recycling					x			x	
Importation of Older Vehicles	A CCERA initiative that would restrict vehicle importation for the purpose of resale in Manitoba if the vehicle is considered to be 'older'	To ensure that imported 'beaters' do not contribute to greenhouse gas emissions in Manitoba		The assent of CCERA triggered an corresponding update to <i>The Drivers and Vehicles Act</i> ; regulation development is expected to commence later in 2009		x		x	
Freight transportation measures	New initiatives totalling \$1.5 million will be provided to help Manitoba's heavy trucking sector adopt new sustainable trucking practices and technologies;	To encourage the long haul trucking industry in Manitoba to increase the use of energy efficiency technologies for economic and environmental benefits		Manitoba has been working with the Manitoba trucking industry on developing an incentive based program to encourage the use of energy efficient technologies		x			x
Transportation Research Centres	Manitoba provided \$12.6 million in funding for the Heavy Equipment Technology Centre at Red River College	To support Manitoba's growing green-energy economy by conducting applied research and advanced training in leading-edge technologies such as biodiesel, ethanol, hydrogen and electric hybrids, hydrogen fuel cells, and emissions and cold-weather testing	N/A	The Heavy Equipment Technology Centre is scheduled to open in early 2009	x	x		x	
Numerous programs through external NGOs	Manitoba is working with organizations on developing public education and outreach campaigns focused on sustainable transportation	Building awareness and changing personal behavior regarding personal sustainable transportation modes	N/A	Manitoba is currently working with Resource Conservation Manitoba (RCM) on several initiatives including development of a household		x	x		x

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
				marketing campaign to provide incentives for Winnipeg citizens to modify their transportation choices and reduce single-occupancy vehicle Trips; other initiatives include active/safe routes to schools; 'greener' driving; and public outreach/education programs					

Summary of Provincial/Territorial Sustainable Transportation Actions – New Brunswick

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
Initiatives Outlined in the Climate Change Action Plan 2007-2012	Action plan to reduce GHG emissions by 5.5 MT by 2012. Transportation is to reduce emissions by 1.2 Mt by 2012	Reduce GHG emissions by 5.5 Mt by 2012	CSA 14064 standards will be used to ensure this target is met.	Implementation of action plan underway. Large projects will be listed in the CSA Directory. Smaller GHG reduction projects will be bundled.					
Provincial Public Transportation Strategy	To develop a partnership between government and stakeholders to ensure that New Brunswickers have convenient alternatives to their private vehicles and that their mobility needs are met.	Improve transportation options and help consumers make informed decisions about vehicles, fuels and transportation in general.	Development is underway				x	x	
Intelligent Transportation Strategy	To position New Brunswick as a national leader in transportation technology and also to help reduce emissions from the transportation sector	To enhance the safety, sustainability and efficiency of the transportation system while supporting the economic and social goals of the province.	Focus areas are R & D and ITS technology deployment.	Implementation of action plan underway. Strategy released	x			x	
Initiatives with Trucking Industry	Work with the trucking industry to examine opportunities for engine efficiency and aerodynamics technologies in order to reduce pollutants and greenhouse gases.	To work in partnership with the New Brunswick trucking sector and other public/private partners to encourage deployment of fuel saving truck technologies.	Reduction in GHG emissions as per CSA 14064	A number of initiatives are in place or planned.	x	x			x
Fleet: LCV's, new generation single tires	Long Combination Vehicles can now operate under special permit on four-lane highways as of June 30, 2008. In December 2007, transport trucks were allowed to use new generation single-wide tires on certain New Brunswick highways under special permit. These tires reduce rolling resistance and fuel consumption and as a result reduce greenhouse gas emissions	To work in partnership with the New Brunswick trucking sector and other public/private partners, to encourage deployment of fuel saving truck technologies.	Reduction in GHG emissions as per CSA 14064	A number of initiatives are in place or planned.	x	x		x	
Incentives: Switch to alt. fuel / fuel-efficient vehicles	Offer incentives to switch to alternative fuel and fuel efficient vehicles.	Through funding opportunities, improve transportation options and help consumers make informed decisions about vehicles, fuels and transportation in general.	N/A	Department of Environment working with the Department of Finance to determine feasibility of different options.			x		x
Green Vehicle Policy	To ensure that the government fleet becomes a model user of low-emission vehicles; To expand the application of idle-free policies and zones for government operations; and To provide leadership in the introduction and use of biofuels.	To ensure that the government fleet becomes a model user of low-emission vehicles; To expand the application of idle-free policies and zones for government operations; and To provide leadership in the introduction and use of biofuels.	Reduce fleet fuel consumption	See below					
Green Vehicle Policy Initiatives	To establish green purchase requirements for government vehicles and set targets for the government fleet to become a model user of alternate fuel vehicles.	To support greenhouse gas reduction and other environmental initiatives.	Reduce fleet fuel consumption	Executive Fleet is more fuel efficient. Fuel costs are factored into the purchase decision of all vehicles under 8500 GVWR. About 20% of the light truck fleet acquired during any fiscal year will		x		x	

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
				have flex-fuel capability in preparation for the commercial availability of ethanol-blended fuels.					
Anti-Idling policy	As of June 1, 2007, anti-idling rules apply to all government vehicles. This is part of the green vehicle policy.	To support greenhouse gas reduction and other environmental initiatives.	N/A	The policy is in place, and departments have been advised of their responsibility to implement it.			x		x
Salt Management Program	Implementation of best management practices for the most efficient use of road salt.	To be environmentally responsible and minimize salt use in winter maintenance operations.	N/A	The application of best practices in salt management will address growing concerns about the effect road salt is having on our natural environment and at the same time continue to provide for road safety by better managing our use of salt.	X	x		x	
System Efficiency	To improve highway traffic flow and capacity and border crossings.			New four lane highways opened, Border crossing improvements Pilot project to increase maximum weight on the Interstate Highway system.	x			x	

Summary of Provincial/Territorial Sustainable Transportation Actions – Newfoundland and Labrador

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
<i>Department of Transportation & Works</i>									
Upgrades to major & secondary highways	Upgrades will improve driving conditions	Improved condition and maintenance of the province's roads and bridges	<p>System in place to collect road condition information on the Trans Canada Highway</p> <p>Investments made in maintenance & construction projects</p> <p>Driving conditions on the province's highway system improved</p> <p>Hard surface completed on Phase I of the Trans Labrador Highway</p> <p>Continued investment of at least \$60M a year for road improvements</p> <p>Continue to partner with the federal government for improvements on the National Highway System</p>	<p>ARAN purchased and data collected on majority of TCH plus some trunk roads</p> <p>\$780M invested over the last 3 years</p> <p>Strategic investments made to improve rutting and surface condition</p> <p>6 km hard-surfaced plus an additional 228 km widened in preparation for hard-surfacing</p> <p>\$76M invested in the Provincial Roads Improvement Program in 2008-09</p> <p>Building Canada Agreement signed</p>		x		x	
More energy efficient Government light vehicle fleet	Adopt an initial target that 25 per cent of all cars and SUVs purchased in the next four years will be energy-efficient vehicles, including, but not limited to, hybrids	Improved energy efficiency for government cars and SUVs	Fuel efficiency of new fleet purchase	Currently under development			x	x	
Idle-free policy for Government fleet	Adopted Government of Canada's Fleet Smart Anti-Idling Policy	Increased awareness of environmental issues reduction in emissions	No distinctive measures in place	Policy in place and communicated to staff			x	x	
Establishment of idle-free zones around Government buildings	Same	Increased awareness of environmental issues reduction in emissions	<p>Idle-free zones established</p> <p>Communiqué sent to all Government employees</p> <p>Signage in place</p>	<p>275 zones in place province-wide in areas where idling was an issue</p> <p>Communiqué sent to all Government employees</p> <p>Signage installed</p>			x		x
Energy efficient ferries	Province is undertaking a Vessel Replacement program to replace its aging ferry fleet & the new vessels will be designed to more energy efficient standards	Improved marine service in the province through implementation of a Provincial Vessel Replacement Program	<p>Construction commenced on 1st 2 new ferries</p> <p>Expressions of interest issued for preliminary design of large ferry vessel</p>	<p>Contract awarded for construction of 2 new vessels & design incorporates improved energy efficiency</p> <p>EOI for large vessel under development</p>	x			x	
Provision of snow-clearing on commuter lots to promote commuting	Same	Same	Snow-clearing provided	Incorporated into operating practice			x		x
Comprehensive Salt Management Plan	Comprehensive Salt Management Plan with a focus on reducing the likelihood of salt leaching into the environment by implementing such	Reduction in the likelihood of salt leaching into the environment	<p>Fleet spreader controls installed</p> <p>Salt containment sheds constructed</p>	<p>Spreader controls installed on all snow-clearing trucks</p> <p>Province-wide plan in place for</p>	x		x	x	

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
	controls as: fleet spreader controls and salt containment sheds, among other management practices.		Introduction of a pre-wet system	construction of salt-sheds & \$2.3M invested annually Pre-wet systems being installed (currently on 58 of 294)					
Changes in asphalt extract methods	Implementation of an oven-based asphalt extraction method	Eliminate use of methylene chloride	Oven-based extraction method in place	Method fully implemented	x	x	x	x	
Implementation of a Road Weather Information System (RWIS)	Implementing a Road Weather Information System (RWIS) with 26 local area forecasting areas to give the Province more concise information on road surface conditions in order to better manage its salt application, etc.	More proactive in ice control & reduction in use of deicing chemicals	Amount of deicing chemicals used	Less salt currently being used, for the weather conditions experienced, than Province would have used without the RWIS system	x			x	
Change in approach to road rehabilitation	Move to a mill and fill process instead of a complete overlay	Reduced emissions through reduction in the amount of aggregate and liquid asphalt used and the amount of product that needs to be heated	Change in practice implemented	Mill and fill process implemented	x		x	x	
Research into potential to improve fuel economies for heavy equipment	Province is currently conducting research into the potential methods and attachments that could be implemented for heavy equipment to help improve their fuel economies	Identification of potential methods to improve fuel economies for heavy equipment for consideration by the Province	Assessment and consideration	Assessment and consideration	x		x	x	
<i>Department of Environment and Conservation</i>									
Sustainable Development Act (to be proclaimed)	The Sustainable Development Act will ensure the province's renewable and non-renewable resources are developed to maximize benefits for the province, while protecting the natural environment so that future generations have the ability to meet their own needs.	Force of law for the enshrinement of sustainable development principles.	Statement of Indicators for Sustainable Development being created. Both the statement of indicators and corresponding Sustainable Development Management Plan will incorporate transportation issues/considerations.	Pending		X		X	X
Funding for Conservation Corps and Climate Change Education Centre	Community awareness of anti-idling		Number of drivers approached				X		X
Participating on numerous committees on Climate Change, Transportation, & Air Quality (TAQC)	National and international in scope	With respect to transportation, develop actions to reduce GHG emissions from the transportation sector	Number of appropriate actions implemented	Ongoing				X	
Methane Capture - Pilot and Feasibility Study Phase 1	Pilot study to determine feasibility of capturing methane gas produced at province's largest landfill.	Initial phase targets methane capture; based on success of project, future phase will look at the feasibility of using methane to power city vehicle fleet	Amount of methane capture and suitability of site for further system development	Provided \$1.6M in funding to City of St. John's to conduct a feasibility and pilot study	X				X
Active Transportation	Provided funding toward a Metro Transit Ridership Awareness Campaign	Get people out of cars and on to transit	Ridership counts and percent increase from previous year	10% increase in ridership; program ended at end of the Summer 2008			X		X
Partnered with the Lung Association to set-up no-idling zones around other public buildings throughout	Activities focused on Western School district to implement idle-free zones at all schools; awareness campaign focused on both vehicles and buses	Eliminate unnecessary idling on school grounds	Number of vehicles found idling unnecessarily	Program started in September and is ongoing			X		X

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
the province									
Assessing advanced vehicle energy efficiency standards	Working with New England Governors and Eastern Canadian Premiers Conference Committee on Transportation and Air Quality (TAQC) to assess advanced vehicle energy efficient standards for the region	To assess advanced vehicle energy efficient standards for the North-Eastern region of US and Canada	To be developed	Approach being developed by TAQC	X				
Mandatory GHG labeling for new vehicles	Working with TAQC to assess the use of GHG labeling for new vehicles to allow purchasers more informed decision making	To determine best approach to development of mandatory GHG labeling for new vehicles for the North-Eastern region of US and Canada	To be developed	Approach being developed by TAQC			X	X	X
Barriers to adoption of battery-electric vehicle technology.	Working with TAQC to review and develop approach to address barriers and facilitate adoption of battery-electric vehicle technology	To review and provide options to overcome barriers the adoption of battery-electric vehicle technology for the North-Eastern region of US and Canada	To be developed	Approach being developed by TAQC	X	X		X	
<i>Department of Natural Resources (with Department of Government Services MVR Branch)</i>									
Energy Plan - Consider the implementation of a rebate program to encourage the purchase of hybrids and other fuel-efficient cars and SUVs	The Energy Conservation and Efficiency Partnership (ECEP) is currently in the process of developing an Energy Efficiency Plan for the Province and these commitments are being considered as part of the development of that Plan.	Currently under development	Currently under development	n/a		X	X	X	
Energy Plan - Investigate ways to influence vehicle choice towards more efficient vehicles.		Currently under development	Currently under development	n/a			X	X	
Energy Plan - Investigate the adoption of advanced vehicle energy efficiency standards as a member of the New England Governors and Eastern Canadian Premiers Conference.		Currently under development	Currently under development	n/a		X		X	
<i>Gander International Airport Authority</i>									
Gander International Airport 1 st carbon neutral airport in North America	On August 1, 2008 Gander International Airport became North America's first Carbon Neutral airport.	Reducing its carbon emissions by 33% year 2020.	Reduction in paper consumption; a procurement policy that gives preference to green vendors; reducing electricity use; more comprehensive recycling; anti-idling policies; energy refits; and a carbon neutral culture.				X		

Summary of Provincial/Territorial Sustainable Transportation Actions – Northwest Territories

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
Sustainable Development Policy	Statement of Policy The Government of the Northwest Territories recognizes that environmental conservation is essential to long term economic prosperity while at the same time economic development can contribute significantly to the achievement of conservation goals. This interdependence between conservation and development will be officially recognized by the Government of the Northwest Territories through the application of the concept of sustainable development to all its decisions and actions related to natural and heritage resources in the Northwest Territories.	(a) Promote integrated resource management (b) Maintain or enhance environmental quality (c) Establish conservation areas (d) Develop natural resources in ways that contribute to a sustainable economy (e) Promote co-operation in the management of trans-boundary resources	Periodic reviews of Government of the Northwest Territories programs, policies and legislation to ensure that they are consistent with the principles of sustainable development.	Ongoing		X		X	
Energy Use Action Plan	The Department consumes a significant amount of energy. The Department has many initiatives to reduce its energy consumption.	The Department is committed to decreasing energy consumption and greenhouse gas emissions.	TBA	Ongoing	X	X	X	X	X
DoT Environmental Strategy (draft pending)	The strategy lays out the Department's immediate and future plans to become a more environmentally-responsible organization. The strategy fosters the development of a corporate culture dedicated to the environment and moving forward on plans and policies that improve the environmental sensitivity of day-to-day transportation operations.	The main goal of the strategy is to further foster a corporate culture of environmental excellence at DOT, and throughout the northern transportation industry. The strategy lays the groundwork for improving operations and demonstrates DOT's commitment to continue efforts to get our own house in order, and to lead by example. It is meant to focus DOT employees on progressive approaches to address environmental challenges, while continuing to maintain high service standards. DOT will intensify efforts to engage the transportation industry on environmental issues and priorities, by sharing information and encouraging industry to also adopt progressive and necessary environmental practices.	TBD	Release is pending	X	X	X	X	X
NWT GHG Strategy	A strategy to control GHG	The specific objectives of the NWT	TBD	Ongoing	X	X	X	X	X

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
	emissions in the NWT 2007-11	Greenhouse Gas Strategy are to: increase awareness in the NWT of the issue of global climate change and the need to control greenhouse gas emissions; engage all northerners including government, non-government, industry and the general public, to take action to control greenhouse gas emissions; identify and implement achievable and practical actions that can be undertaken immediately, as well as longer-term actions which will result in future, sustained reductions in greenhouse gas emissions in the NWT, taking into consideration the economic, environmental and social costs and benefits; and identify economic opportunities that may arise from the use of cleaner sources of energy and more efficient equipment and technology.							
Winter Road Bridges and Grade Improvements	Construction of permanent structures at stream crossings and grade improvements on the Mackenzie Valley Winter Road. Shortage of snow, warmer weather and stricter environmental regulatory requirements, have all contributed to the late opening of the Winter Road resulting in a significantly decreased window of operation.	Construction of new permanent bridges and grade improvements: Improve the ability of local residents to travel between communities in the region and provide safe, secure and reliable access and mobility for the residents of the NWT. Contribute to providing better development access to the renewable and non-renewable natural resources in the NWT, and facilitate further economic development within the region. Ultimately minimize the environmental impact of the winter road crossings on the stream crossings. Significantly increase the window of operation of the Mackenzie Valley Winter Road, and improve the mobility of the local residents. Put in place critical building blocks leading up to construction of the Mackenzie Valley All Weather Road.	Increased window of operation.	There are 42 major stream/river crossings along the current MVWR between Wrigley and Fort Good Hope. As of Jan 09, 36 will have been constructed.	X	X			
Efficient Driving Education Campaigns	The Department worked with FMBS and PWS on the development of guidelines on Vehicle Use – Energy Conservation	To promote more efficient driving practices and reduce GHG emissions.		Implemented	X		X	X	X

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
	<p>for GNWT employees. The guidelines are now part of the HR Manual.</p> <p>The Department has worked with ENR and the Arctic Energy Alliance on the development of promotional materials. Two brochures, one on winter driving tips and one on summer driving tips were distributed in all NWT mailboxes. The brochures are available at the licenses issuing offices.</p> <p>DoT website lists 10 fuel economy tips to inform drives who want to take steps to reduce the impact of their driving on the environment and save money.</p>								
Equipment Management System	The Department has acquired "WebWorks", a commercial Asset Management System. The equipment maintenance components of this system have been implemented to capture information from our various Highway Camps and Central Repair Facility. The Department is implementing the components related to Facilities, Highway Maintenance, Project Costing and Materials Management.	This system will assist the Department in realizing operational efficiencies and cost savings associated with asset maintenance and utilization, inventory management and improved fuel consumption.	TBD	Testing phase. Full implementation to follow.	X	X		X	
Ferry Engine Replacement	Replacement of the four engines of the MV Louis Cardinal to improve	Improved fuel efficiency and reduction in GHG emissions	Reduction in fuel consumption	Installed in the spring of 2008	X	X			
Climate Change and Transportation in the NWT – descriptive report	<i>Climate Change and Transportation in the Northwest Territories</i> , which focused on all-weather roads and runways, provides a detailed description of climate change impacts on existing transportation in terms of operations, maintenance and construction. The information was gathered through stakeholder interviews and workshops.	<p>Specific outcomes of the project included:</p> <p>Assembly of existing information on climate change impacts on the all-season transportation infrastructure and the measures taken to address the impacts;</p> <p>The prediction of future impacts on the transportation system using spatial data sets and models coupled using the latest climate change</p>		Completed in March 2007	X	X		X	

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
		<p>projections for the region;</p> <p>The development of a GIS based terrain analysis/database to evaluate the magnitude and extent of risk to the transportation system;</p> <p>The establishment of critical physical, socio-economic, political and environmental thresholds and the assessment of when those thresholds might be reached;</p> <p>Determination of the economic and, where possible, the social consequences of the predicted impacts;</p> <p>The development of adaptation measures that minimize impacts and take advantage of new opportunities; and</p> <p>The identification the preferred options and best practices.</p>							
Climate Change Adaptation Plan	The Department's Climate Change Adaptation Plan will apply traditional and scientific knowledge to define probable northern climate change impacts, and propose possible adaptation strategies.	DoT is adapting to the impacts of climate change in our day to day operations and introducing climate change as a factor in the planning and design of transportation infrastructure. These initial responses are for the most part reactive; planning and design are based on observed rather than anticipated impacts. Our adaptive measures are more short-term than long-term. The goals are to gain knowledge and improve our ability to deal with future and potentially more dire circumstances.	TBD	Specific R&D projects are planned for the next 2 years.	x	X			

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
Deh Cho Bridge	Construction of the kilometre long bridge across the Mackenzie River near Fort Providence eliminating the need for the ferry and ice crossing.	Improved service; reduced energy consumption and GHG emissions due to the elimination of the diesel-powered ferry and idling vehicles waiting to cross the river; reduced risk of fuel spills in a fragile ecosystem; reduced impacts that will result from climate change		Construction ongoing, completion scheduled for Nov.2010	X	X			
RWIS Pilot Project	The installation of an RWIS station on Highway #3 in the Chan Lake area. Highway #3 is part of the Core National Highway System. This section of the highway has an AADT of approximately 300 vehicles per day. Chan Lake is near the boundary between the Fort Providence and Edzo Highway Beats, is located approximately 95 km north of the Fort Providence Beat Highway Maintenance Camp and 120 km south of the Edzo Beat Highway Maintenance Camp. Weather patterns near Chan Lake are often different than those in Edzo or Fort Providence.	The objectives of the project are to acquire and install a Road and Weather Information System (RWIS) station for the purposes of providing highway maintenance supervisors and staff with road and weather information and forecasts to make informed decisions on winter road maintenance. Benefits will include improved safety for highway users, more effective use of highway maintenance resources, and a reduction in collisions.		Implementation is pending	X	X			
Tlicho Road Corridor Study	The Tlicho Road Corridor Study is the first strategic plan with climate change as a central issue. The study is in response to the request of Tlicho communities for more reliable access to their region.	The Department is investigating the realignment of the winter road between Behchoko and Wha Ti to an overland alignment that could, in time, become an all-weather road.		Planning and environmental scoping study are completed.		X		X	

Summary of Provincial/Territorial Sustainable Transportation Actions – Nova Scotia

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
Departmental Sustainable Transportation Strategy, 2008	The strategy is a departmental one that outlines practices the Department has already incorporated within its own operations and covers measures that will support more ST practices and the use of alternative transportation modes in Nova Scotia.	The Department felt it was important to declare its position on sustainable transportation, as well as to identify specific projects/initiatives it had undertaken/ was planning to undertake related to ST.	N/A	N/A (Strategy was just released in 2008) Identified new projects are underway		x		x	
Provincial Sustainable Transportation Strategy, 2010	In Jan. 2009, the province released its Climate Change Action Plan. One of its actions is the preparation of a provincial ST Strategy by 2010. This strategy will be prepared by a interdepartmental task force with help from Municipalities and input from key stakeholders. It will consider all aspects of transportation, including public transit, active transportation, funding, and land-use planning.	Areas investigated will include sustainable transportation's effect on energy use and conservation, climate change and air pollutant emissions, economic development opportunities, and the health of Nova Scotians. The report will include a review of government policies that may support or inhibit sustainable transportation, and will define the role government in sustainable transportation. The plan will encompass active transportation, intelligent transportation systems, transportation industry efficiency, transportation networks in NS, transportation demand management, and land use planning. The final report will include the work done by another committee on Public Transit strategies.	Not developed yet.	Task force work to be underway by March 2009	X	X	X	X	X
Sustainability Steering Committee "Green Team"	The "Green Team" is responsible primarily for identifying and coordinating present and potential sustainability programs, policies, and issues that impact the department. The Green Team will also be responsible for reviewing and developing plans and potential programs that will enhance the sustainability efforts of the department.	The rationale behind this process is to ensure that there is understanding and coordination of sustainability initiatives, to prevent duplication and redundancy of effort, and to promote greater synergies towards the sustainable prosperity of the department.	N/A	The Green Team meets at least monthly Members participate in corporate and/or I/p/t working groups related to sustainability issues The Green Team manages an internal, employee-driven program called "ReThink" which is aimed at enhancing green activities in the workplace.		x		x	
Salt Management Plan	NS depends heavily on road salt to maintain safe highways during the winter months. However, road salt has been under heavy scrutiny for its impacts to the environment (salty well water, plant and animal mortality, etc).	Manage road salt's impact on the environment by ensuring its proper storage and use.			x	x		x	

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
Construction / traffic initiatives	Various, including exploration of the use of alternative paving technologies (recycled asphalt, etc).	Contribute to increasing sustainability in the department's mandate for highway construction.	N/A	Ongoing as new techniques and processes become available.	x			x	
Anti-Idling policy	Departmental anti-idling policy states that when using government-owned, leased or rented vehicles or motorized equipment, employees will make every effort to eliminate unnecessary idling. Conserve Nova Scotia produces anti-idling messages for the public (media-driven).	To decrease idling and thus decrease GHG emissions and other pollutants from idling.	N/A	A provincial anti-idling policy will be-developed by 2009.			x		x
E-pass program for workplaces	The Department planned to have the E-Pass program implemented this Fall, however implementation has been postponed by Metro Transit (Halifax Regional Municipality).						x		x
Provincial Green Fleet	Interdepartmental working group tasked with implementing the recommendations from a report on greening the provincial fleet. Components include: right-sizing, procuring most fuel efficient vehicles in their class, consideration of life-cycle cost, use of alternative fuels, hybrids.	Green the fleet of the provincial government (including car rentals by government employees)	N/A	14 Recommendations from the provincial Green Fleet report (2007) are being implemented (2008-2010).	x			x	
Vehicle Policy	Fuel efficiency and environmental impact must be incorporated into procurement decision. Purchase must be from top 20% of their class in terms of fuel efficiency.	To increase fuel efficiency and environmental performance of the provincial fleet.	N/A	In effect as of 2007		x		x	
Internal ST Code of Practice	Code of Practice designed to guide employees on driving sustainably and choosing alternative modes of transportation.	To encourage employees to drive sustainably and/or choose alternative modes of transportation when on government business.	N/A	The Code of Practice is currently under development by the "Green Team."			x		
Website to promote ST among departmental employees	Intranet website with ST links and resources for TIR employees.	To promote ST among departmental employees; make employees aware of ST options and initiatives ongoing within the department	N/A	Website is currently under development by Sustainability Steering Committee and employee-driven "ReThink Committee"			x	x	
Highway Development on selected roads to accommodate AT	Pilot project to construct sealed chipped shoulders on a provincial highway for active transportation (cycling) use.	To improve the infrastructure and safety for active transportation within the province.	N/A	Ongoing					x
Trucking Actions/policies	LCV pilot project – based on NB pilot project	Economic objectives in addition to reducing GHG emissions by allowing trucks to haul larger loads on select four-lane highways in Nova Scotia.	N/A	Program launched in October 2008. Currently accepting applications for participation in the pilot project.	x				

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
National Active Transportation Strategy	Transport Canada initiated an exercise looking at potential for the development of a national active transportation strategy. NS Depts of Transportation & Infrastructure Renewal and Health Promotion and Protection participated.	Develop a national active transportation strategy with the participation of federal/provincial/territorial government stakeholders (possibly municipal governments as well).	N/A	Contact Transport Canada.		x		x	
Environmental Goals and Sustainable Prosperity Act,	The Environmental Goals and Sustainable Prosperity Act (EGSPA) was proclaimed in June of 2007. The act sets out 21 provincial goals such as reduced air emissions, new energy standards for buildings and increased protection of land and water.	The Act forms the "2020 Vision", which states that Nova Scotia will be one of the cleanest and most sustainable environments in the world by 2020.	Transportation related: <ul style="list-style-type: none"> Status of new motor vehicle emission standards for air pollutants and greenhouse gases (policy development) 	Annual Progress Report for 2008 available at: https://www.nsassessment.ca/nse/egspa/docs/EGSPA2008ProgressReport.pdf The 21 goals/targets are identified with performance measures and progress to-date.		x		x	
Climate Change Action Plan, 2009	Two main goals of reducing province's contribution to GHG emissions and preparing for changes that are already inevitable.	68 Actions to be taken by 2020 in the following areas: cleaner energy, energy efficiency, renewable energy, transportation, air quality, leadership by example, education, adapting to climate change, measurement and accountability	To be developed	Not identified here	x	x	x	x	x
Transit Tax Credit	Starting in 2009, the Province will provide a transit tax credit (\$1.5 million in Budget 2008).	To encourage Nova Scotians to use the public transit system.	N/A	Implementation 2009		x			
Investment in Transit for Rural and Underserved Communities	\$3 million/year incentive program through Service Nova Scotia and Municipal Relations (announced in 2008-2009 budget)	Help municipalities provide public transit in unserved and underserved rural areas	N/A	Ongoing		x			x
Energy Strategy Renewal, 2009		Goals identified in the following areas: Conservation & Efficiency, Renewables, Electricity, Offshore Petroleum, Onshore Petroleum, Technology, Downstream Energy Opportunities, Social Accountability.	To be developed	Identified in document	x	x	x	x	
ecoNova Scotia for Clean Air and Climate Change http://www.gov.ns.ca/ecoNovaScotia/	The ecoNova Scotia Municipal Program supports municipally run projects that target reductions in greenhouse gas and other air pollutants. It will directly invest \$7.5 million into projects initiated by Nova Scotia municipalities from now until March 31, 2010. The Environmental Technology Program (ETP) will support the development, demonstration, adoption and commercialization of innovative environmental technologies that reduce greenhouse	The programs will help achieve the Province's "20/20 Vision" through EGSPA (see above).	N/A	Ongoing. Fall 2008 update: http://www.gov.ns.ca/econovascotia/pdf/EcoNovaScotia-Backgrounder-2008.pdf 39 projects have been supported with \$4.6 million in grants (projects valued at \$13 million) GHG emissions are expected to be reduced by 58,672 tonnes/year and air pollutants by over 231,579 kg/year.	x	x			x

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role			
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach		
	gas (GHG) and air pollutant emissions while advancing sustainable prosperity in Nova Scotia. It will directly invest \$9.5 million into projects initiated by Nova Scotian businesses, The funding was provided by the Government of Canada in 2007.										
Green Mobility Capital Grants	Funded by Conserve Nova Scotia and implemented by the Ecology Action Centre. Grants were awarded to rural communities and small towns for environmentally-friendly transportation infrastructure projects, such as buying a van or building a bike path.	It is a one-year pilot program to assist towns, municipalities and community groups in the creation of community-based sustainable transportation infrastructure.	9 communities received funding in 2007 as part of this pilot project.	Pilot project has concluded.		x			x		
Rural Mobility Research Funding	These are programs/initiatives funded (in part/in full) by, but not implemented by, the provincial government.					x					
E-PASS, U-PASS						x			x		
Rapid Bus Transit					x	x			x		
Green Mobility Strategy						x				x	
TRAX						x					x
Steer Clean						x					x
Active and Safe Routes to School						x					x

Summary of Provincial/Territorial Sustainable Transportation Actions – Ontario

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
Development of Sustainable Transportation Policy Office	<ul style="list-style-type: none"> The Sustainable Transportation Policy Office was created in 2007 to develop the policy framework and strategies required for a sustainable transportation system that meets Ontarians' traveling needs. The Office does so by working with other areas of the ministry to leverage supporting legislation, regulations and technological options. In addition, the office develops policy that will promote economic prosperity, respect the environment, provide transportation choice and enhance the quality of life in Ontario. The Office is also responsible for 	<ul style="list-style-type: none"> To develop the policy framework and strategies required to support a sustainable transportation system that meets Ontarians' traveling needs. To develop policy that will help promote economic prosperity. To respect the environment. To help provide transportation choices. To help enhance the quality of life in Ontario. 	The Office was established in November 2007.	The Office is currently pursuing a number of initiatives to help meet the identified strategic goals, such as: developing a Sustainability Strategy for the Ministry, developing an Active Transportation policy, as well as design and implementation of the Green Commercial Vehicles Project.	x	x	x	x	x

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
	liaising with other levels of government to provide leadership and to ensure consistency with respect to sustainability approaches, and for supporting other ministry offices and ministries in the development and delivery of transportation alternatives and environmentally sustainable transportation initiatives.								
Sustainability Strategy for Ontario Ministry of Transportation	<ul style="list-style-type: none"> The Sustainability Strategy for the Ministry of Transportation will provide a framework to more systematically incorporate sustainability into MTO programs, policies, and internal business practices. 	<ul style="list-style-type: none"> To support a safe, efficient, multi-modal transportation system. To build green infrastructure. To address climate change. To reduce the ecological footprint of the Ontario public sector. 	Performance indicators will be developed as part of the strategy implementation plan to track progress and to ensure accountability.	The Sustainability Strategy is currently in development with consultation and input from across the Ministry.	x	x	x	x	x
Environmental Standards and Practices (ESP)	<ul style="list-style-type: none"> The ESP consists of documentation, guidance and tools to protect the environment during all stages of provincial highways management including transportation planning and highway design, construction, operation and maintenance for MTO staff and service providers and supports inter-agency protocols between the ministry and specific regulatory agencies such as the Ontario Ministry of the Environment and the Department of Fisheries and Oceans. The documents broadly include a synthesis and interpretation of the extensive list of applicable requirements from environmental legislation, regulation and government policy; the ministry's environmental assessment processes and procedures applicable to a range of environmental factors; and the selection, design and implementation of environmental protection, mitigation and compensation measures. 	MTO Environmental Standards and Practices need careful and ongoing management so MTO can maintain regulatory compliance and manage environmental risk. The ESP has been designed to manage massive amount of information, adapt and grow, train staff and service providers and to provide the most current information to MTO staff and its agents, environmental regulatory agencies, stakeholder groups and the public.	Number of additions/revisions implemented in response to changes in legislative requirements.	The documents will continue to be updated over time, as regulatory requirements and ministry processes and procedures change. Current updates required include review of Environmental Protection Requirements, possible enhanced standards for the Greenbelt, negotiation of a Protocol to support Endangered Species legislation and development of a corresponding environmental guide.		x		x	x
Integrated Fare Collection System for the Greater Toronto Area (GTA) and Hamilton	<ul style="list-style-type: none"> MTO, together with GO Transit and eight municipal/regional transit service providers within the GTA and Hamilton, as well as with Ottawa's OC Transpo, are undertaking the design, development and implementation of a seamless regional transit farecard system (PRESTO) based on contactless Farecard ("Smartcard") technology. The 	<ul style="list-style-type: none"> To increase transit ridership by facilitating the use of transit across transit systems. 	<ul style="list-style-type: none"> Increased transit ridership 	Implementation for all GTA and Hamilton transit systems (excluding Toronto Transit Commission) and Ottawa is expected to be completed by Winter 2010/11. A pilot program involving Mississauga Transit, GO Transit, and TTC (Union Station only) has been completed. Several public transit agencies throughout the world are currently implementing similar fare	x		x	x	

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
	<p>participants are GO Transit, Hamilton Street Railway, Burlington Transit, Oakville Transit, Brampton Transit, Mississauga Transit, York Region Transit, Durham Region Transit, Toronto Transit Commission, and OC Transpo.</p> <ul style="list-style-type: none"> •PRESTO will allow commuters to use a single fare card while traveling across multiple public transit systems. 			systems.					
Regional Transportation Plan (RTP) for the Greater Toronto Area and Hamilton (GTHA)	<ul style="list-style-type: none"> • Metrolinx developed a draft Regional Transportation Plan for the GTHA to: <ul style="list-style-type: none"> o Co-ordinate municipal and provincial transportation planning to support multi-modal options o Support more compact urban development, focused in nodes and corridors, as outlined in Ontario's Growth Plan, which will make travelling by transit, bike, or on foot more viable options. 	<ul style="list-style-type: none"> • To champion, develop, and implement an integrated transport system for the GTHA region that enhances prosperity, sustainability, and quality of life. • To improve the coordination and integration of all modes of transportation in the region. 	<ul style="list-style-type: none"> • The average distance traveled by car each day per person • Percent of people living within 2 km of rapid transit • Approximate length of dedicated bike lanes in the region • Percent commuters who can get to work in 45 minutes or less by transit • Average time spent commuting each day per person • Percent people who can use an integrated fare card • Percent transit vehicles accessible to persons with disabilities • Traveler satisfaction with the transportation system • Total number of transit trips taken each year • Number of transit riders during morning peak period • Proportion of morning rush hour trips taken by transit • Percentage of school children 11 years of age or older who walk or cycle to school • Annual GHG emissions from passenger transportation per person • Annual fuel and electricity consumption from passenger transportation per person • Number of occupants in the average private motor vehicle during morning rush hour 	Metrolinx released a Draft RTP and a Draft Investment Strategy (IS) on September 28 th , 2008. Public consultation on the two draft documents is underway and will continue until mid-November. The final RTP and IS are expected to be delivered in late 2008.			X	X	X
Central Region Carpool Lot Strategy	<ul style="list-style-type: none"> • The Central Region Carpool Lot Strategy identifies about 50 new lots and existing lot expansions over the next 25 years. Several lots currently in design or construction phase. 	<ul style="list-style-type: none"> • To manage congestion by providing support for carpooling. 	<ul style="list-style-type: none"> • Reduced congestion along routes with carpool lots 	Established 79 carpool lots in the province.			X	X	
Transit investments						x	x	x	x
Traveler's Road Information Portal (TRIP)	<ul style="list-style-type: none"> • Development of an effective public information website with a user-friendly interactive map. 	<ul style="list-style-type: none"> • To display all available MTO traveler information databases, including locations of MTO carpool lots and HOV lanes, in a user-friendly manner. 	<ul style="list-style-type: none"> • Number of users 	Website is under development.	X		X	X	X

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
Transportation Demand Management (TDM) Municipal Grant Program	<ul style="list-style-type: none"> Launched a TDM Municipal Grant Program in June 2008 to provide financial assistance to Ontario municipalities for the development and implementation of TDM-related initiatives. The program is intended to encourage municipalities to implement TDM initiatives as part of their normal transportation planning processes. 	<ul style="list-style-type: none"> To provide financial assistance to municipalities to develop and implement TDM initiatives that will reduce the daily vehicle kilometers traveled by single-occupant vehicles and encourage alternatives to driving such as transit, cycling, walking, and carpooling. 	<ul style="list-style-type: none"> Number of proposals received Quality and quantity of projects funded Project specific objectives and indicators 	Proposals were evaluated in early October, 2008 by a multi-agency evaluation committee. A number of applications have been recommended for approval to MTO senior management. Results will be communicated to the municipal applicants in November.		x	x	x	x
Pilot projects for alternative vehicles					x	x	x	x	x
Speed Limiters	<ul style="list-style-type: none"> Ontario passed legislation mandating speed limiter use on most large trucks to cap speeds at 105 kilometres per hour to reduce pollution and improve road safety. 	<ul style="list-style-type: none"> To increase safety. To reduce greenhouse gas emissions. 	<ul style="list-style-type: none"> Reduction in average large vehicle speeds Reduce greenhouse gas emissions by up to 280,000 tonnes (equivalent to taking 2,700 tractor-trailers off the roads every year) Save about 100 million litres of diesel fuel per year. 	Bill 41, the Highway Traffic Amendment Act (Speed-limiting Systems), 2008, was passed on June 18, 2008.	x	x	x	x	
Integrated Transportation and Land Use Planning	<ul style="list-style-type: none"> Integrated Transportation and Land Use Planning <ul style="list-style-type: none"> Integrating our transportation planning with provincial and municipal land use planning, which will help us to: <ul style="list-style-type: none"> Accommodate and shape future growth Make more efficient use of our transportation infrastructure Integrating Ontario's Greenbelt into Transportation Planning. The Greenbelt is an area of permanently protected green space, farmland, vibrant communities, forests, wetlands, and watersheds. Its over 1.8 million acres includes the Niagara Escarpment, the Oak Ridges Moraine, and the Rouge Park. 	<ul style="list-style-type: none"> To ensure the communities we build are supported by a multi-modal transportation system and are designed to encourage the selection of more sustainable transportation options, reducing the reliance on the automobile. To fully integrate the goals, objectives and policy requirements of the Greenbelt Plan into MTO's planning and Environmental Assessment (EA) study processes, and to ensure the Greenbelt is given special consideration at key milestones in the study process – such as problem definition, alternative evaluation, route selection, impact assessment and mitigation. 	<ul style="list-style-type: none"> Residential density Modal share Amount of greenfields and farmland protected 			x		x	x
Environmental Statement of Values (SEV) under the Environmental Bill of Rights	<ul style="list-style-type: none"> The Ontario Environmental Bill of Rights (EBR) Act requires that ministries prescribed under the Act, including the Ministry of Transportation, prepare a Statement of Environmental Values (SEV). The SEVs affirm a Ministry's commitment to the environment and hold it accountable for ensuring that environmental considerations are incorporated into policy decision-making. 	<ul style="list-style-type: none"> To affirm the Ministry's commitment to the environment. 	<ul style="list-style-type: none"> Updated original 1994 SEV to reflect changes in government policy. Posted revised 2008 SEV on EBR Registry 	Revised MTO SEV was posted to the MOE EBR Registry on November 3, 2008.		x	x	x	x
Multi-Modal Planning Approaches	<ul style="list-style-type: none"> The planning process for future transportation corridors will 	<ul style="list-style-type: none"> To provide a multi-modal transportation system. 	<ul style="list-style-type: none"> Modal share 		x	x	x	x	x

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
	include multi-modal solutions for moving goods and people and considering the broader environmental context and land use objectives, rather than pursuing only highway-based solutions. • Placing a greater focus on other forms of transportation, including transit								
Smart Commute	• Smart Commute is an umbrella organization that supports TDM options and ride matching in GTA and Hamilton municipalities and that coordinates nine transportation management associations.	• To support TDM options and ride matching in GTA and Hamilton municipalities.	• Number of members	The Province became the primary funder of Smart Commute in 2008, as the organization was absorbed into Metrolinx.	X		X	X	X
Green Vehicle Programs	• The Green Commercial Vehicle Project is a four-year, \$15 million pilot project that will provide grants towards the purchase of alternative fuel medium-duty commercial vehicles and anti-idling technology for heavy duty vehicles. • Participants will be required to collect and provide performance data with MTO. Overall performance information will be provided to both participants and other Ontarians to improve knowledge of the performance and benefits of environmentally friendly commercial vehicle technology.	• To incent the uptake and implementation of fuel efficient, GHG friendly green commercial vehicles and technology. • To reduce greenhouse gas and other emissions from commercial vehicles. • To collect and disseminate information about the performance and benefits of environmentally friendly commercial vehicle technology	• Number of commercial operations participating • Reduced greenhouse gas emissions and other pollutants	Project details were announced October 30 and are intended to be launched November 28, 2008.	x	x	x	x	x
Ontario Ministry of Transportation (MTO) Environmental Management System (EMS)	• The EMS initiates continuous improvement of MTO's environmental performance by taking a systematic approach to developing, implementing, monitoring MTO environmental standards and practices, policies and programs to manage the impact of MTO's activities on the environment. The EMS includes a commitment to compliance with environmental laws in the planning, design, construction and operation of Provincial Transportation Facilities and recognizes the importance of taking a due diligence approach to managing environmental risks with the intent of preventing problems before they occur.	EMS provides a framework to sustainably manage MTO activities in delivery of provincial transportation facilities and is a tenet for responsible ownership/corporate stewardship.	Developed I&IT application to support EMS implementation. Engaged MTO staff and interested parties. Number of preventative/corrective actions initiated and resolved.	Current EMS implementation within the Provincial and Environmental Planning Office (PEPO) is focussed on requirements of environmental policies and practices developed by PEPO and ensuring that requirements are available to head office and regional environmental functions. The EMS needs to extend to Provincial Highways Management Division activities, including managing service provider environmental performance in an outsourcing business climate, quality assurance quality control (QA/QC), contract oversight, regional environmental functions and other aspects of operational control.	X	X	X	X	
Car Heaven	• Launched in July 2000 by the Clean Air Foundation with help from the Ontario Ministry of the Environment's Drive Clean Office and the Ontario Automotive	• To retire and responsibly recycle old, higher-polluting vehicles	• Amount of money raised for charity • Number of cars recycled through program	In Ontario, in 2007 alone the program retired over 11,000 vehicles. Since its launch eight years ago, the Car Heaven program has been responsible for getting	x	x	x	x	x

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
	Recyclers Association to accelerate the retirement of old, higher-polluting vehicles and to ensure that vehicles are recycled in an environmentally responsible manner. • The program has now expanded to all provinces in Canada.			about 50,000 old vehicles off Ontario roads.					
Greening Government Fleet	• Corporate fleet strategy to reduce greenhouse gas emissions.	<ul style="list-style-type: none"> To reduce greenhouse gas emissions. To increase percentage of fleet that is hybrid or alternative fuel vehicles. To reduce the number of vehicles in the fleet. To reduce idling time. To reduce the number of older vehicles in the fleet. 	<ul style="list-style-type: none"> 5% reduction of greenhouse gas emissions by 2012 Number of hybrid or alternative fuel vehicles Reduced fuel consumption Reduced number of older vehicles 	To date, the MTO Fleet consists of 12% hybrid vehicles and 21% alternate fuel vehicles. 90% of the Ministers' vehicles are hybrid or alternate fuel. 31% Deputy Minister's vehicles are hybrid or alternate fuel vehicles.	x		x	x	
Pilot Projects for Alternative Vehicles	<ul style="list-style-type: none"> Electric bicycles to be used on public roads across the province by anyone aged 16 and over as part of a three-year pilot (effective October 3, 2006). Segway® vehicles to be used by persons 14 years of age and older who have mobility disabilities, Canada Post letter carriers and police officers on sidewalks and roadways as part of a five-year pilot (effective October 13, 2006). Use of Segway® vehicles is at the discretion of municipalities. Low-speed vehicles to be used in provincial and municipal parks and conservation areas on low-speed roads as part of a five-year pilot (effective September 19, 2006) 	<ul style="list-style-type: none"> To support vehicles manufactured and sold in the province that are environmentally friendly, fuel efficient and safe. To ensure the safe integration of new vehicle types with pedestrians and other road users before any new type of vehicle will be allowed on Ontario roads. Reduction in greenhouse gas emissions, increased choices for road users. 	<ul style="list-style-type: none"> To test and evaluate how these vehicles perform, whether in mixed traffic or a controlled setting, before deciding how to treat these vehicles and their operators in legislation. 	<p>The regulations governing these pilot programs require an evaluation prior to their respective expiry dates.</p> <p>The e-bike pilot expires on October 3, 2009; MTO has begun the process of consultations and evaluating the e-bike pilot to determine how safely the e-bike can integrate with other motor vehicles, bicycles and pedestrians.</p> <p>The LSV pilot expires September 13, 2011. However, public interest continues to be high on this initiative. Therefore, MTO has commissioned an independent expert study to recommend how we can get LSVs onto Ontario's roads safely. We expect these results towards the end of Fall 2008.</p> <p>The Segway pilot expires on October 13, 2011 and an evaluation will be conducted closer to the expiry date.</p>	x	x	x	x	x
Energy Efficiency for traffic signs and lights	<ul style="list-style-type: none"> Conversion of ministry owned traffic signals to high efficiency bulbs to reduce energy consumption. Install solar power to provide energy for Truck Inspection Station Building Installing high mast lighting where feasible – one high mast light replaces 7 traditional light poles 	<ul style="list-style-type: none"> To reduce energy consumption. 	<ul style="list-style-type: none"> Number of converted traffic signals and lights Kilowatt hours saved annually Kilowatt hours of solar power produced annually 	<ul style="list-style-type: none"> Converted all 547 ministry owned traffic signals to high efficiency bulbs, saving 12 million kilowatt hours annually. Delivering up to 90% of the energy for the Fort Erie Truck Inspection Station building with solar power. 	x				x
Clean Air Commute	• Managed by Pollution Probe, a non-governmental organization, this program encourages workplaces to organize environmentally-friendly modes of	<ul style="list-style-type: none"> Reduce single occupant vehicle commuter trips. 	<ul style="list-style-type: none"> Number of registered users Total number metric tons of air pollution reduced 	In 2008/09, over 300 MTO staff participated in the Clean Air Commute and over 13 metric tons of air pollution were reduced.					

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
	commuting into work for one week each year.								
Drive Clean	<ul style="list-style-type: none"> The Drive Clean program was introduced in Ontario in 1999 and is delivered by the Ministry of the Environment Drive Clean reduces smog-causing emissions as well as other pollutants by requiring designated vehicles to have their emissions tested before their licence plates can be renewed or they are re-sold. MTO ensures that vehicle owners meet Drive Clean emissions requirements when renewing vehicle permits or changing vehicle ownership. 	<ul style="list-style-type: none"> The purpose of the Drive Clean program is to achieve reductions in vehicle emissions of smog-causing pollutants by requiring vehicles to undergo an emissions test to identify emissions problems and have them repaired. 	<ul style="list-style-type: none"> Number of vehicles tested/year. 	<ul style="list-style-type: none"> The Drive Clean program tests more than 2.6 million vehicles per year. According to two recent reports from independent consultants under contract to the MOE: <ul style="list-style-type: none"> From 1999 to 2005, Drive Clean reduced smog-causing pollutants (NOx and VOCs) from light duty vehicles by a total of over 150,000 tonnes. During the same period, the program has also reduced emissions of carbon monoxide (CO) by over 1.4 million tonnes, and carbon dioxide (CO₂), a greenhouse gas, by more than 170,000 tonnes. In 2005 alone, Drive Clean reduced smog-causing pollutants and hydrocarbons [HC], and the toxic gas CO by over 25 percent from light duty vehicles in the program area. In 2005 alone, Drive Clean reduced microscopic PM from heavy duty diesel vehicles throughout Ontario by more than 20 percent. From 2000 to 2005, Drive Clean reduced PM emissions from these vehicles by over 1,300 tonnes 	X	X	X	X	
Construction Materials	<ul style="list-style-type: none"> Support MTO aggregate needs through recycling and the use of non-traditional sources 	<ul style="list-style-type: none"> Increase the percentage of recycled and non-traditional materials used as aggregate. 	<ul style="list-style-type: none"> Identify and qualify additional sources of recycled and reclaimed materials available for use as aggregate 	All reclaimed pavement materials are reused in highway construction. 18% of MTO aggregate needs are met by recycling and the use of non-traditional sources.	x			x	
Establishment of Greener Roads Advisory Committee	<ul style="list-style-type: none"> The Greener Roads Advisory Committee (GRAC) will develop a systematic framework for making sustainability an integral part of infrastructure planning, design, construction and maintenance. 	The GRAC will promote economic, environmental and social sustainability in road construction and maintenance.	Development of new standards.	Committee and terms of reference have been established.	X		X	X	X
Road Salt Management	<ul style="list-style-type: none"> Advanced practices include: <ul style="list-style-type: none"> Pre-wetting salt to make it more effective; Installing Fixed Automated Spray Technology (FAST); and Using electronic devices on the equipment to control the rate of application. Advanced weather forecasting systems 	<ul style="list-style-type: none"> To reduce road salt usage, reduce environmental impact of road salt use. 	<ul style="list-style-type: none"> Reduction in salt usage 	The ministry's actual salt usage is highly dependent upon weather conditions, varying from 500,000 to 600,000 tonnes of salt annually. Combining safe road salt use with new and existing MTO technologies is estimated to reduce road salt use by up to 20 per cent	x	x		x	
Recycling of Transportation Infrastructure	<ul style="list-style-type: none"> Develop and promote infrastructure recycling technologies such as in-place pavement recycling that maximize 	<ul style="list-style-type: none"> Develop and promote infrastructure recycling technologies 	<ul style="list-style-type: none"> Monitor regional use of in-place recycling Review hot mix specifications to 	<ul style="list-style-type: none"> Approximately 10 contracts per year Review of hot mix specification 	X		X	X	

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
	recycling, minimize the use of natural resources, reduce energy consumption, and reduce green house gases.		facilitate greater recycling	has commenced					
Transit Investments	<ul style="list-style-type: none"> • Making two cents per litre of provincial gas tax available to municipalities for public transit. • Funding GO Transit, an interregional transit system that carried 48.7 million passengers in 2006/07. • Implementing MoveOntario 2020 - \$17.5 billion investment. 	<ul style="list-style-type: none"> • To increase transit ridership. • To reduce congestion. 	<ul style="list-style-type: none"> • Modal share of transit riders 	Municipal transit ridership up by 14.7% since 2003.		x	x	x	x
TransForum 2007	<ul style="list-style-type: none"> • On May 28 and 29, 2007, Ontario hosted its first Sustainable Transportation Forum, known as the TransForum. 	<ul style="list-style-type: none"> • To bring together leaders in the field of sustainable transportation. • To engage experts in dialogue. • To create ongoing exchange of best practices. 	<ul style="list-style-type: none"> • Number of participants • Relationships with new stakeholders • Visitors to website • Reported downloads 	Almost 400 people attended from across Canada and around the world.			X	X	X
High Occupancy Vehicle (HOV) Lanes	<ul style="list-style-type: none"> • Introduced HOV lanes on a number of Ontario's highways, and launched an HOV Network plan which will result in 450 km of new HOV lanes on provincial highways over the next 25 years. 	<ul style="list-style-type: none"> • To manage congestion on provincial highways by moving more people in fewer vehicles. HOV lanes are open to transit vehicles and cars with two or more people. 	<ul style="list-style-type: none"> • Reduced travel time 	HOV lanes have been built on Highways 403 and 404 and are under construction on the QEW and Hwy 417 in Ottawa. Design for HOV lanes is underway on a number of other roads. Staff are monitoring the use of the HOV lanes, and are working with the OPP to ensure effective enforcement.	x	x	x	x	x

Summary of Provincial/Territorial Sustainable Transportation Actions – Prince Edward Island

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
Public Transit in Charlottetown and potential expansion	Public transit system serving Charlottetown area, expanding service.	Provide alternative mode of transportation; decrease dependency on private motor vehicles; reduce GHG emissions; enable economic development.			x		x	x	x
Environment staff to oversee highway construction	Provides environmental quality control and assurance for Department activities and initiatives	Protect and preserve the environment, while streamlining environmental approval process for Department projects			x	x		x	
'Right-sizing' of government fleet	Efforts ongoing to right-size government fleet and locate equipment closer to worksites	Reduce costs, use of fossil fuels, and GHG emissions			x			x	
Road Salt Management Plan	Outlines best practices for salt use and storage.	Reduce environmental impact of winter road maintenance, and improve road efficiency and safety			x			x	
Green/hybrid vehicle programs	Provincial sales tax rebate of up to \$3000 offered for the purchase or lease of hybrid vehicles	Reduce GHG emissions and dependence on fossil fuels				x		x	

Summary of Provincial/Territorial Sustainable Transportation Actions – Québec¹

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
Sustainable Development Act	<p>The Act defines sustainable development for Québec and establishes 16 principles of sustainable development to guide the action of the public administration. It commits the government to adopt a single sustainable development strategy for all government ministries and a large number of agencies and commits the ministries and agencies concerned to 1) identify the actions they will be taking to help achieve the objectives of the strategy and 2) report annually on the results of their actions. It establishes mechanisms for sustainable development evaluation and accountability to measure the progress achieved.</p> <p>Québec's sustainable development legislation confirms the commitment of government ministries and public agencies and ensures the longevity of the government's sustainable development approach.</p>	<p>The Act is aimed at establishing a new management framework within the public administration that takes the principles of sustainable development into consideration.</p> <p><i>"The purpose of this bill is to set up a new management framework within the Administration to ensure that powers and responsibilities are exercised in the pursuit of sustainable development.</i></p> <p><i>The measures introduced by the bill are intended to better integrate the pursuit of sustainable development into the policies, programs and actions of the Administration, and to ensure, in particular through the establishment of a set of principles and asustainable development strategy, that government actions in this area are coherent."</i></p>	<p>A list of sustainable development indicators will be adopted for monitoring and measuring progress achieved in Québec in the area of sustainable development.</p> <p>Appointment of an Assistant Auditor General, bearing the title of Sustainable Development Commissioner, to assist the Auditor General in the performance of the duties of office relating to sustainable development auditing</p>						
Government Sustainable Development Strategy 2008-2013	<p>This is the frame of reference in which the government indicates where it intends to go, the objectives it wants to achieve, and how it intends to go about it.</p>	<p>The Strategy is based on three challenges and contains nine strategic orientations, three of which are priorities. It is aimed at achieving 29 objectives around which government intervention in sustainable development will be articulated.</p>	<p>Indicators are identified to ensure follow-up on the government strategy.</p>						
Ministère des Transports Strategic Plan	<p>The new strategic plan identifies the principal outcomes sought by the Ministère des Transports in the next four years.</p>	<p>It is aimed at responding to the challenges related to the longevity of transportation equipment and infrastructure, optimal use of transportation systems, safety of users, accessibility of places, maintenance of expertise and the capacity of the organization to</p>	<p>The Plan contains orientations, axes of intervention and measurable objectives. Targets and performance indicators have been set for each of the objectives. There are more than 35 indicators that will be followed-up annually.</p>	<p>In 2007–2008, the ministry continued to fulfill the ministerial objectives for sustainable development set out in its 2005–2008 Strategic Plan.</p> <p>The year 2008–2009 will see the launch of a new strategic plan for</p>					

¹ Most of the information in this section has been drawn from the annual management report of the Ministère des Transports for 2007–2008 (in French only). http://www1.mtq.gouv.qc.ca/fr/pub_ligne/requetedetail.asp?nodoc =3066

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
		adequately fulfill its mission.		2008–2012.					
Ministère des Transports Sustainable Development Action Plan	The 2008–2013 Sustainable Development Action Plan is a public document that defines how the ministry will be involved in achieving the objectives of the Government Sustainable Development Strategy. It includes the priority actions identified in the ministry's Sustainable Development Strategy.	The actions outlined in the Action Plan contribute to the achievement of objectives falling under various strategic orientations of the Government Sustainable Development Strategy.	Targets and performance indicators have been set for each of the ministerial objectives.						
Ministère des Transports Sustainable Development Strategy	The structure of the Ministère des Transports Sustainable Development Strategy for 2008–2013 reflects the ministry's three areas of intervention: transportation activity planning; management of transportation networks and governance. It is a driving force for the organization for the period 2008–2013.	The main objective of the ministry's Sustainable Development Strategy is to integrate sustainable development principles into the ministry's products, services and activities. The orientations that have been identified, the objectives that have been set and the actions that have been planned ensure synergy and consistency between the sustainable development interventions of both the government and the ministry.	Targets and performance indicators have been set for each of the ministerial objectives.		x	x	x	x	x
Climate Change Action Plan 2006-2012 Challenge for the Future (Reduction and Adaptation)	The 2006–2012 Action Plan, <i>Québec and Climate Change, A Challenge for the Future</i> was made public on June 15, 2006 and improved on December 6, 2007. This action plan consists in 26 actions to mitigate GHGs and adapt to the impact of climate change. The ministry is responsible or shares responsibility for implementation of eight of these 26 actions.	The revised Plan consists in 14 actions, including the following: "Support municipalities taking GHG emission inventories and action on climate change and adopting regulations to offset the effects of idling motors"; "Encourage the development and use of public transit"; "Encourage the development and use of alternative transportation"; and "Encourage the implementation of multi-modal projects for the transportation of merchandise".	Targets and performance indicators have been set for each of the actions.		x	x	x	x	
Energy Strategy	The Energy Strategy shows the path that Québec will be taking over the next ten years. It expresses our government's vision with respect to resource development and use. It immediately triggers initiatives that will help prepare for the future.	The Energy Strategy revolves around six objectives: 1) Reinforcing the security of the energy supply. 2) Using energy as a lever of economic development. 3) Giving more say to local and regional communities and First Nations. 4) Achieving more efficient energy consumption. 5) Playing a leadership role in sustainable development. 6) Setting a price structure for electricity that is consistent with the interests of Québec and sound resource management, thereby	Actions have been implemented and targets and performance indicators set.		X	x	X	x	

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
		improving price signals while protecting consumers and our industrial structure.							
Québec Infrastructure Plan Foundations for Success Infrastructure Rehabilitation Strategies/Plans	The Québec Infrastructure Plan, <i>Foundations for Success</i> , is a five-year investment plan for the period 2007–2012. It covers the following nine sectors: the road system, public transit, health, education, municipal infrastructure, public housing, research, justice, and public safety.	In the interest of intergenerational fairness, the Québec Infrastructure Plan helps ensure the longevity of the public infrastructure as whole and thereby pass high quality infrastructure on to future generations. It is also aimed at ensuring the safety, and improving the quality of life, of the citizens who make daily use of aging infrastructure.	The investments made under this plan will help restore 83% of the roadways in the next fifteen years (\$3.7B over the first five-year plan).			X		X	
Efficient Interprovincial Trade Corridor Initiatives (Ontario)	Intervention strategy that takes economic, social and environmental considerations into account, as well as the frameworks of the three government bodies involved: Québec, Ontario and the federal government.	The anticipated results are improvement of transportation infrastructure, policies, operating measures, etc. in order to increase the efficiency of the multimodal transportation system and strengthen the competitiveness of the Ontario-Québec region.	Performance indicators have been listed in the ministry's, Strategic Plan and Sustainable Development Action Plan and Strategy.	On July 30, 2007, the Government of Québec signed the Canada–Ontario–Québec Memorandum of Understanding on the development of the Ontario-Québec Continental Gateway and Trade Corridor confirming the parties' intention to collaborate on this initiative by developing a shared vision and objectives, a governance structure, a framework for collaboration with partners in the public and private sectors, a joint action plan, ways of exchanging information and best practices, and a protocol for communication.	x	x	X	x	X
Intermodal Infrastructure Initiatives/Policy	The Québec policy on intermodal transport is aimed at making each of the modes of transportation within a logistical chain of efficient continuous transportation more efficient, by relying on the comparative advantages of Québec to develop intermodality.	The objective of the Québec policy on intermodal transport is to put in place the conditions conducive to the development of intermodal practices for transporting people and goods.	Actions have been implemented and targets and performance indicators set.			x			x
Marine Transportation Policy	The Marine Transportation Policy adopted by the Conseil des ministres [cabinet] on June 21, 2001 and implemented by the Ministère des Transports reflects the concerns of four sectors of activity (transportation of goods, international ferries, excursion-style cruises, and recreational boating) and deals with major challenges of Québec's marine industry.	Four main orientations have been determined: <ul style="list-style-type: none"> • Increase the use of the St. Lawrence for transportation and trade. • Use the St. Lawrence as an asset for regional development. • Develop the promotion and enhancement of maritime activities on the St. Lawrence. 1) Facilitate labour training and the development of Québec know-how.	Actions have been implemented and targets and performance indicators set.	This policy is backed by an assistance program and an action plan, the objective of which is to support the strategic role of marine transportation in the Québec economy. Some 78% of the action plan was accomplished by the end of 2006. Implementation of the other actions (the remaining 22%) is ongoing.		x	x	x	x
Québec Public Transit Policy	The Québec Public Transit Policy, <i>Better Choices for Citizens</i> , fits in with the implementation of sustainable development and is aimed at increasing both urban and	The objectives of the Québec Public Transit Policy (PQTC) are <ul style="list-style-type: none"> • to encourage the development and use of 	Actions have been implemented and targets and performance indicators set.	During the 2007–2008 year, the ministry contributed more than more than \$355.1 million in direct assistance to all modes of public transit, including \$52 million from the Fonds vert [green fund]. To this		x	x	x	x

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
	rural use of public transit.	public transport; <ul style="list-style-type: none"> to encourage the development and use of alternatives to the automobile. The PQTC involves seven financial assistance programs.		must be added a sum of more than \$122 million from car drivers' contribution to public transit and the gas tax in the Montreal region. Public transit ridership in large urban areas went up by 1.9% in 2006, or 9.7 million more trips than in 2005. This increase is more than double that recorded in 2005 (4.7 million) and is the highest increase in the last five years.					
Government assistance program for alternative transportation (PAGMTAA);	As part of the Québec Public Transit Policy, the Ministère des Transports has put a government assistance program in place for alternative transportation, covering the period from January 1, 2007 to December 31, 2011.	This program is aimed at supporting initiatives encouraging travel by foot and bicycle, helping employers to put measures in place to encourage employees to opt for alternatives to solo car use and promoting alternatives to the automobile.	The program is accounted for in the ministry's annual management report.						
Air Transportation Assistance Programs	The Air Transportation Assistance Program was created to maintain the network of regional service areas and the development of air transport in Québec. Within the framework of the Program, the government provides means for putting new air services in place to meet the needs of regional communities or developing new niches in aviation for regional airports. The program has three components. Component 1 – Maintenance of essential air service areas; Component 2 – Improvement of air services; Component 3 – Market studies.	<ul style="list-style-type: none"> When a carrier stops providing regular service, provide essential air service to citizens of the regions of Québec. Improve air services and servicing of the regions of Québec. Acquire thorough knowledge of a market before launching a new air transport service. Help municipal airport corporations develop new niches in aviation. Help coordinate stakeholders in the planning of local air services.	The program is accounted for in the ministry's annual management report..	Regional service improved in 2006–2008, going from 34 to 48 air connections.		x		x	x
Emission Reducing Green Technology Demonstration/ Pilot Projects	The green technology demonstration program stems from action 20 of the new action plan on climate change for 2006–2012.	<ul style="list-style-type: none"> Support the development of technologies that reduce or capture GHG emissions. Improve energy efficiency so as to reduce the consumption of fossil fuels. Replace fuels and fossil fuels with renewable energy. Contribute to the development of Québec industry and job creation in the green 	The Agence de l'efficacité énergétique [energy efficiency agency] does an annual accounting.		x	X	x	x	

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
		technology sector.							
Greening Provincial Fleet	The Centre de gestion de l'équipement roulant (CGER) [fleet management centre] was the Ministère des Transports' first independent service unit.	<p>The CGER is the fleet management agency with the most hybrid vehicles in Québec. It has made a special effort to promote environmentally friendly vehicles.</p> <p>It is very much interested in biodiesel and plans to experiment with this environmentally advantageous fuel in the next few years.</p>	The annual report of CGER is accounted for in the ministry's annual management report.	<p>The total fleet, including leased and available vehicles, vehicles for loan and those used by the CGER, numbered 6001 units as at March 31, 2008.</p> <p>The CGER had a fleet of about 125 hybrid vehicles.</p>	x			x	
Demonstration Pilot Project on Neighborhood Electric Vehicles (NEV)	In Québec, several demonstration projects have been carried out since 1998 to evaluate the integration of Low Speed Vehicles (LSVs) or neighbourhood electric vehicles (NEVs). Changes having recently been made to the <i>Highway Safety Code</i> , a pilot project on the use of these new types of vehicles was set up in June 2008. The project is three years long and may be renewed for another two years. This year-round project will run throughout the province, with certain safety conditions.	<p>The Québec pilot project is aimed at studying the use of NEVs in a safe and controlled environment allowing collection of the data necessary to determine the advisability of allowing them on a permanent basis.</p> <p>The objectives of the pilot project are as follows:</p> <ul style="list-style-type: none"> Experiment with the use of NEVs on certain public roads. Develop traffic regulations for this type of vehicle. Establish standards with respect to safety equipment for NEVs. 	As the rules for using NEVs, including traffic regulations, have to be defined before the use of NEVs can be allowed, several aspects will be dealt with (driver, mandatory safety equipment, places where NEVs are allowed, etc.).		x	x		x	x
Transportation Action Plan for Persons with Disabilities	The ministry's most recent annual Action Plan for Persons with Disabilities covers actions during the period from April 1, 2008 to March 31, 2009.	<p>It covers the following fields of activity:</p> <ul style="list-style-type: none"> Accessibility of premises and equipment; Accessibility of infrastructure; Service areas; Reception, communication and documentation; Land transportation. 	Performance indicators have been set for each action.		x	x			
Adapted transit government assistance program	The adapted transit government assistance program is for the three year period 2008–2010. It was set up to financially support Québec municipalities and public transit corporations offering transit services meeting the needs of persons with disabilities.	The program is aimed at supporting municipalities in their efforts to provide and improve adapted transit services, and giving persons with disabilities a degree of mobility comparable to that of the general population.	Indicators have been established for the purpose of annual accounting.						
Transportation Safety Policy	The Ministère des Transports is planning to accentuate its efforts to reduce the road toll and the social	The Plan involves 27 actions that revolve around eight means:	Actions have been implemented and targets and performance indicators set.	<p>Road Safety Year in Québec produced the best road toll statistics in the past 60 years.</p> <p>In 2007, the total number of victims</p>		x	x	x	

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
	and economic cost of casualty accidents and proposes a road safety action plan that involves continuing and intensifying initiatives that have proved beneficial in the past and implementing new initiatives that may help to further reduce accidents. In 2006, the objective was to develop a Québec road safety policy to follow up the previous policy. In 2007, it was decided to make public a government road safety action plan. This action plan will be published in 2009.	1. Make the road environment safer; 2. Mobilize partners and share responsibilities; 3. Improve the safety of road vehicles; 4. Get users to respect traffic rules; 5. Foster research and innovation; 6. Increase the use of collective and alternative transportation; 7. Strengthen control mechanisms; 8. Continue efforts undertaken by the heavy vehicle industry.		fell by 5%, compared to 2006. More specifically, mortalities and the numbers of seriously and slightly injured fell by 15.7%, 23% and 3.4%, respectively.					
Cycling Policy	The new 2008 Cycling Policy continues the 1995 policy but is more oriented towards the use of bicycles as a mode of transportation.	Gradual encouragement of the use of bicycles as a mode of transportation. Promotion of road safety to cyclists and other users of the road. Improvement of the transportation system for cyclists.	Measurable targets have been set for each of the objectives.	The proportion of bike trips made for utilitarian purposes was 17% in 2005. The number of cyclists killed or seriously injured annually in the period 2002–2006 was 189. In 2005, there were 6789 km of bikeways in Québec.		x	x	x	
Route verte (Bikeways Project)	Route verte was conceived by Vélo-Québec and is being implemented in conjunction with the Ministère des Transports, other partners in the provincial government and regional partners. It is a 4366-km bike route linking the following regions: Témiscamingue and the Outaouais (Hull) in the west to Gaspésie (Gaspé) in the east; and Abitibi, the Laurentians and Saguenay/Lac-St-Jean in the north to central Québec and Estrie in the south.	The project, a genuine catalyst of development in Québec, fits into the tradition of the world's great bike routes. Development of the Route verte is motivated by a concern for capacity building and improving health and the environment.	As an evaluation tool, the Route verte has a publication entitled <i>État du vélo</i> that is produced every five years. Public awareness of the system is measured through surveys.	In 2007, the Route verte was 90% complete, meaning that 3923 kilometres are now accessible. The time that it is expected to take to complete the trail, or at least make it 97% complete, is three years.		x	x	x	x
Action Plan to Promote Healthy Living	<i>Investir pour l'avenir</i> [invest in the future] is the title of the government action plan to promote healthy lifestyles and prevent weight-related problems for 2006–2012.	This action plan puts in place an ongoing process to improve the quality of life, health and well-being of Quebecers and reduce the inherent costs of illness.	Implementation of the planned actions will be accounted for through monitoring of performance indicators and results.			x	x		x
PPSC Sustainable Transportation Task Force	The Ministère des Transports has been participating in the work of the Sustainable Transportation Task Force since it was formed.	Partnership and sharing of information				x		x	
Other Committees and Task Forces	The Ministère des Transports is involved in several national and international associations, including PIARC, TAC, AQRE, etc.	Partnership and sharing of information				x		x	
Department websites on sustainable development, the ecological	Websites on sustainable development, the environment, climate change and the ecological management of roadside vegetation	Inform civil servants and the general public and raise their awareness regarding sustainable development.	Website traffic is monitored.			X	X	X	X

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
management of roadside vegetation, and climate change	have been put on line and are available to the public and civil servants.								
Ministerial Roadworks Strategy	This strategy is aimed at avoiding the "worst-in, first-out" response and instead opting for the right intervention at the right time and the right place.	Make choices that meet high cost-benefit criteria while bearing in mind the optimization of resources and performance, and the sustainability of actions and infrastructure.			X			X	
Pavement Selection Policy	The MTQ has established networks dedicated to concrete and asphalt pavement based on life cycle cost analysis (LCCA), multi-criteria analysis and life cycle analysis (LCA).	These studies take into account economic, social and environmental criteria in order to select the type of pavement representing optimal investment over the long term (50 years), in order to select the most appropriate type of pavement based on amount and type of traffic, [sic]			X			X	
Performance Monitoring Program	This monitoring has made it possible to increase structural lifetime.	Validate new pavement products and technology. In addition, the MTQ applies the Long Life Pavement concept to certain major projects.			X			X	
Recycling of Materials	Recycling enables up to 20% asphalt rubble content in new asphalt and gives priority to reusing materials (coated materials, cement concrete, etc.) within a given project.	The recycling techniques in place are favoured when the technique lends itself well to the project concerned.	The MTQ aims for reuse, currently estimated to be 15%, to reach 20% in the next few years.	The MTQ uses an average of 30 000 tons of old asphalt in the construction of new asphalt. Approximately 300 000 tons of material are generated during reconstruction and reused either on site or on other worksites.	X			X	

Summary of Provincial/Territorial Sustainable Transportation Actions – Saskatchewan

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
Transportation Partnership Program	Vehicle weights and dimensions in Saskatchewan are limited by regulation to ensure the safety of the traveling public and to allow the efficient transportation of goods within and through the province. Transportation Partnership Programs allow shippers or receivers in Saskatchewan to increase productivity through reduced transportation costs by using vehicles which safely exceed current regulated weights and/or dimensions. In exchange for this privilege, partners pay for any incremental damage to provincial infrastructure into a special fund used for infrastructure improvement.	<ul style="list-style-type: none"> • Enhance Truck Safety • Support Economic Development in Saskatchewan • Promote the use of Road Friendly and Efficient vehicles • Promote Effective Utilization of Provincial Infrastructure. • Ensure Taxpayers Do Not Subsidize Costs of Program Trucks on Highway System. 	<p>Economic Savings created by Trucking Programs (Over Dimensional, Bulk, Timber, EEMV, VAAP, and Oil/Misc.)</p> <p>Trucking Safety</p> <p>TPP provisions within our contracts encouraging the use of more energy efficient vehicles which reduce costs in terms of fuel, time and emissions.</p> <p>All of our TPP agreements support sustainable transportation initiatives in terms of reduced emissions, less vehicles on road and congestion.</p>	<p>2006/2007 Economic Savings \$65 million</p> <p>Trucks operating under TPP are 7 times safer than Provincial Commercial Vehicle Average</p>	<p>Dynamic Testing for</p> <ul style="list-style-type: none"> • Static Rollover Threshold • Rearward Amplification • Load Transfer Ratio • High Speed Transient Offtracking • High Speed Friction Utilization • Low Speed Offtracking • High Speed Offtracking • Low Speed Friction Utilization 		<p>Trucking Education</p>		
Operations: Establish Environment Management Group and hire environmental specialists	Ministry of Highways and Infrastructure has hired environmental specialists in each of the three regions and established a Environment Management Group to deal with environmental issues in construction and preservation of highways	To ensure the environment laws and regulations are followed during highway design, construction, and preservation activities,							
Transportation Policy	Expansion of primary weight highway network to allow trucks to haul heavier weight	<ul style="list-style-type: none"> • Support provincial economic development by reducing trucking costs of freight transportation • By reducing the number of trips for a given amount of commodity, the fuel consumption and carbon emission will also be reduced. 	<p>Increased primary weight truck haul on highways.</p> <p>Newly built/rehabbed highways are all primary weight capable.</p>	In the process of implementation					
Transportation Policy	Urban Highway Connector Program	<ul style="list-style-type: none"> • Promote mobility and continuity of highways passing through the urban boundary. Fuel consumption and carbon emission is expected to be reduced as well. • Planning studies around cities reduce emissions, congestion and time delays, etc. 		In the process of implementation.					
Rail Services Unit	Shortline Railway Sustainability Program (SRSP)	Provide a 50/50 cost shared grant to provincial shortlines for upgrading and rehab projects on provincial railway infrastructure	Successful if eligible shortline railways do enough track upgrading and rehabilitation to utilize the available program funds totaling \$500,000	All of the funds have been allocated to approved shortline projects. To date, 40% of program funds have been paid out for completed work and it is anticipated the remaining 60% will					

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
				be paid before the end of the fiscal year					
Air Travel Policy Unit	Community Airport Partnership (CAP) Program	Objective of program is to provide eligible airports with stable, long term financial assistance (on a 50/50 cost shared basis) for the rehabilitation, construction and capital improvements to the network of strategic regional airports in southern Saskatchewan	Priority is given to safety-related airside capital improvement projects such as runway rehabilitation, taxiway, apron along with existing lighting and navigational aids. Total ministry program funds total \$500,000.	For the second consecutive year since the CAP program was initiated, applications far exceeded the total funding amounts and most if not all successful applications will be completed this fiscal year.					
First Nations Communities Access Program	Provide surfaced access to the First Nation Communities, a set of pilot projects has been completed, and a evaluation assessment is underway	Provide equitable transportation access to First Nation communities	No. of main First Nation connected by surfaced roads	Evaluating pilot projects					
Operations Division, pavement rehabilitation, use rubber asphalt	Rubber asphalt concrete – use of the recycled tires in pavement overlay	<ul style="list-style-type: none"> Recycle waste tires in good use Reduce reflective cracking Improve ride quality and pavement life Reduce traffic noise 	<ul style="list-style-type: none"> Recycled tires used Reduced cracking Improved pavement life Reduce traffic noise 	Cracking reduced significantly	Design and construction of rubber asphalt				
Operations Division, pavement maintenance using cold treatment	Cold treatments (micro surfacing) -	Reduces carbon footprint by using a cold (vs hot) process (less volatile compounds than a petroleum based products), reduced costs for treatment of rutting							
Operations Division, equipment fleet	Reviewing the Ministry's idling policy	Reduces carbon footprint	new trucks automatically shut off after 15 minutes of idling						
Operations Division, salt management	Salt management - monitoring the usage and storage of salt,	Clean-up existing sites, new storage facilities to reduce leaching, environmental assessment of storage buildings To minimize the amount of salt entering the environment through new technologies and best practices for handling, storage, and application	<ul style="list-style-type: none"> Reduce/restrict use to minimum required for highway safety Enhance management practices/staff training Use enhanced storage facilities (Cover-all Buildings) Phyto-remediation trial on salt impacted ground 						
Operations Division, gravel pit management	Retesting depleted gravel pits - trying to identify any usable gravel sources	Careful use of nonrenewable resources, and reduced construction costs	Usable gravel sources and reduced costs						
Operations Division, culvert relining	Culvert relining instead of excavating and replacement	Not disturbing the environment, and reduced costs							
Operations Division, erosion control	Erosion control - increased staff to monitor and reduce erosion, using more manufactured products for erosion reduction	Reduced erosion and maintenance costs	Reduced erosion						
Engineering Standard, road salt long term impact study	Fund long term research in the University of Regina on highway salt monitoring	To understand the long term effect of winter salt use on highways to the environment	Research report and publications	Sampling design and analytical techniques					
Operations Division, retread tires	Tires - retread tires instead of new tires – tendered								
Operations Division, ITS surveillance	ITS camera systems for maintenance surveillance	Less travel for the same surveillance	Reduced fuel use and carbon footprint						
Operations Division, recycling	Hot and cold asphalt recycling	Reduce the use of nonrenewable resources and reduce costs							
Operations Division, Reclamation	<ul style="list-style-type: none"> Salvage & replacement of topsoil on slopes/ditches (preservation & construction projects) Using native seed mixes on 								

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
	<ul style="list-style-type: none"> sloes/ditches – less mowing required than with tame species, and less palatable to wildlife -> reduced “deer hits” - Wetland mitigation/compensation on grading projects - Erosion & sediment control measures designed/enacted into grading projects and site remediation 								
Operations Division, Waste Management	Creosote-treated timber incineration trial (rather than landfilling) = eliminate future liability & possible leachate contamination issues	Promote “good housekeeping” (best management practices) at maintenance shops/yards -> reduce/eliminate waste/clutter = enhance safety/reduce liabilities							
Operations Division, fleet services	Fleet services has protocols in place for the use of bio fuels and other initiatives								
Fleet services	Double wings on trucks	Increase productivity, reduce number of passes to clean 4-lane highways							
Ministry of Highways and Infrastructure, and Ministry of Municipal Affairs	administers management green transit programs that support the sustainability objectives.								
Central Vehicle Agency	<ul style="list-style-type: none"> - policy requires most effective ways of traveling, using pooled vehicles - test hybrid vehicle use - Different compensation levels for private vehicle use when exceeding certain km 								

Summary of Provincial/Territorial Sustainable Transportation Actions – Yukon Territory

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
Anti-Idling campaign	A gov't wide educational program was done approximately 8 years ago and Transportation Maintenance Branch has carried on by tracking anti-idling in the units that have SW tracking. (Those are the large trucks, the largest single part of the fleet). The intent is that anti-idling apply to all vehicles, but only certain ones have SW.	Reduce emissions. Reduce wear and tear on vehicles. Reduce cost of fuel.	Keep idling times at or below 12% of engine time (annual average). Regular checks of SW downloads (at least 4 times per year, more as requested)	There is a wide range of performances, from 2% to 40% or more for small numbers of units. The higher numbers are not annual averages. They are worst case, such as 3 months during winter.			x		x
Road and Weather Information Sites	Installation and monitoring of 3 RWIS sites in 3 micro climates with the highest traffic volumes in the Whitehorse area.	Use the additional information to apply the right amount and type of material to the right location at the right time, to reduce use of chlorides on the highway.	Lower use of materials. Lower rate of incidents.	The RWIS sites have only been running for approximately 2 full winters. Variations in winter season make it difficult to measure the impact of this activity on costs and incident rates.					
Government Energy Strategy	Contains strategic initiatives for energy efficiency and conservation within the Yukon Transportation sector			Recently released				x	
Government Climate Change Action Plan	Commitment to establish targets for GHG emissions in the Yukon, and commits government to capping then reducing emissions from government operations.			Currently in draft form				x	
Greening and 'right sizing' of provincial vehicles	Purchase hybrid vehicles and smart cars when appropriate. Right-size the fleets by continually reviewing gov't needs and life/nature of fleet.	Reduce emissions. Reduce fuel cost to run vehicles. Reduce number of vehicles to replace. Increase usage per vehicle.	None really identified yet for 'greening'. Compliance with recommendations of fleet reviews.	Nothing to measure against yet for 'greening'. Compliance achieved at Transportation Maintenance Branch.			x	x	
Reuse and recycling of construction materials, highway signs	Salvage and reuse of bridge girders, signs and posts, salvage and recycling of steel.	Reduce cost of projects. Reduce need for new products.	None.	None.	x			x	
Analyzing Total Cost of Ownership when purchasing fleet vehicles	Modify existing procurement processes to make TCO the determining factor in a purchase.	Reduce overall cost of ownership of fleet vehicles. Get a better quality of vehicle.	Equipment rates should go down over time as O&M costs stay low because the vehicles were chosen partly because of lower O&M costs.	Too early to tell.		x		x	
Road Salt Management	Submit Road Salt Management Plan to Environment Canada and update annually. Use plan in highway maintenance operations.	Use available tools to apply the right amount and type of material to the right location at the right time, to reduce use of chlorides on the highway.	Reduction in use of chlorides on highways in the winter. Reduction in impact on climate (for example, more salt sheds)	No quantified measures, but chloride purchases have decreased in some areas. There are many variables, such as winter weather, and it is still early to assess the road salt management plan. Also, the number of salt sheds has increased.	x				

Summary of Federal Department Sustainable Transportation Actions –Canada

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
Sustainable Development Strategy	Transport Canada's Sustainable Development Strategy outlines a number of activities that will be undertaken over the next three years, and is available at: www.tc.gc.ca/sds	<p>The ultimate results of our programs are intended to be:</p> <p>Environmentally sustainable transportation system for all Canadians;</p> <p>Reduction of greenhouse gas emissions (GHG), criteria air contaminant (CAC) emissions, and other pollution from the transportation sector; Prevention and mitigation of environmental damage from transportation activities; and</p> <p>Each of Transport Canada's programs has more specific results and impacts, many of which can be found on the TC website.</p>	Each commitment has separate targets and associated performance indicators/measures	The 2007-2009 Sustainable Development Strategy is currently being implemented. Performance reporting is completed annually and includes information on the status of each commitment/target.			X	X	X
ecoTRANSPORT Strategy	Announced in February 2007, the strategy is part of the Government of Canada's ambitious agenda to protect our environment and the health of Canadians and to further our economic prosperity (programs are outlined below).	<p>In order to better measure the benefits to Canadians of Transport Canada's programs, the department has developed a clear articulation of expected results, how these will be achieved and how they will contribute to reducing air pollutant and GHG emissions. The results stemming from the programs are measured through indicators such as the numbers and types of technology units installed or the number of organizations engaged in emission reducing activities.</p> <p>The measurement approach provides greater accuracy in the monitoring of sustainable transportation initiatives funded by the department's programs and their ability to increase the uptake of energy efficient technologies and best practices in the transportation sector. This approach will also facilitate a more transparent, accurate and timely reporting of the programs' results in the context of Canada's Clean Air Agenda.</p>	See individual components below.	See individual components below.		X	X	X	X
ecoTECHNOLOGY for Vehicles	Building on the best elements of Transport Canada's fuel efficiency programs that Canadians have relied on for many years, the program includes in-depth testing and publishing of the safety and environmental performance of a range of emerging technologies for		<p>Immediate outcomes:</p> <ul style="list-style-type: none"> Increased knowledge about technologies and vehicles generated. Information on the program, the technologies, and the vehicles effectively disseminated to the Canadian consumer and 	<p>In 2007-08, the eTV program:</p> <ul style="list-style-type: none"> Began the procurement process to acquire the next generation of vehicles and technologies for testing and evaluation. Completed a global environmental scan of all emerging technologies and 	X		X	X	X

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
	use in light-duty vehicles. It fosters important new partnerships with the automobile industry and others across the country to help identify and take action on barriers to the introduction of environmental technologies in Canada. (http://www.ecoaction.gc.ca/ecotransport/ecotechnologyvehicles-ecotechnologievehicules-eng.cfm)		<p>automotive industry.</p> <p>Immediate outcomes:</p> <ul style="list-style-type: none"> Increased public awareness. Increased penetration of advanced technology vehicles in the marketplace. <p>Ultimate outcome:</p> <ul style="list-style-type: none"> Reduced Greenhouse gas (GHG) emissions from transportation sources in 2010/11 	<p>developed protocols for testing and evaluation.</p> <ul style="list-style-type: none"> The program published a series of informative technical articles for the eTV web site. These articles, program tests and evaluation results were shared with Canadians to promote consumer understanding and acceptance of cutting-edge technologies that reduce the environmental impacts of motor vehicles. Showcased vehicles and technologies at over 22 events across the country, ranging from major Canadian international auto shows (in Toronto, Montreal and Vancouver) to consumer lifestyle or environmental shows, providing over 23,000 Canadians with information on advanced environmental technology for vehicles. Continued to work in cooperation with the automotive industry, other government departments, and consumers to better identify barriers to the introduction of advanced vehicle technologies in Canada. 					
ecoFREIGHT	<p>The ecoFREIGHT program will take new steps to reduce the environmental and health effects of freight transportation through the use of technology.</p> <p>Freight Technology Demonstration Program</p>		<p>The contribution program is a direct response to the rapid growth in freight transportation activity, which is predicted to lead to increased emissions.</p> <p>This contribution program is designed to achieve the following objectives:</p> <ul style="list-style-type: none"> Support improvements in modal and inter-modal freight efficiency and reduce air emissions and energy use in the freight transportation sector; and Demonstrate and encourage the take-up of innovative environmental technologies and efficient best practices within the freight transportation sector that can reduce GHG emissions and air pollutants. <p>In the short term, this initiative is designed to achieve the following results:</p> <ul style="list-style-type: none"> Support the testing of new and underutilized technologies; Enable the transfer of knowledge from demonstrations to broader 	<ul style="list-style-type: none"> The program staff promoted the Freight Technology Demonstration Fund at a program booth at 10 modal conference and events. The management team also spoke about the ecoFREIGHT program at 15 events through formal and informal presentations. These promotion activities had a positive effect as 47 proposals for demonstration were submitted for the first round of funding. This is a record number of proposals based on the previous programs experience. The selected projects under the Freight Technology Demonstration Fund have good potential to actually reduce emissions and cover all modes. Eight projects were selected for a total funding of \$2.4 M, which is around 40% of the program allotted G&C budget. 	X	X (Grants and Contribution Program)		X	X

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
			industry; • Implement pilot projects; and • Demonstrate results achieved by industry. In the medium to long term, this initiative is designed to achieve the following results: • Adoption of environmentally friendly technologies and best practices by the freight industry; • Reduction of GHG emissions and air pollutants from the transportation sector; and • Improved efficiency in the transportation industry.						
ecoFREIGHT	Freight Technology Incentives Program		The contribution program is a direct response to the rapid growth in freight transportation activity, which is predicted to lead to increased emissions. This contribution program is designed to achieve the following objectives: • Support improvements in modal and inter-modal freight efficiency and reduce air emissions and energy use in the freight transportation sector; and • Encourage the take-up of innovative environmental technologies within the freight transportation sector by reducing the cost barriers of the technologies. In the short term, this initiative is designed to achieve the following results: • Provide incentives for the purchase and installation of proven technologies; and • Acquisition and installation of equipment by project proponents. • In the medium to long term, this initiative is designed to achieve the following results: • Greater adoption of efficiency enhancing equipment; • Reduction of GHG emissions and pollutants from the transportation sector; and • Improved efficiency in the transportation industry.	• The program staff promoted the Freight Technology Incentive Program at a program booth at 10 modal conference and events. • The management team also spoke about the ecoFREIGHT program at 15 events through formal and informal presentations. These promotion activities had a positive effect as 62 proposals for incentives were submitted for the first round of funding. This is a record number of proposals based on the previous programs experience. • The selected projects under the Freight Technology Incentives Program have excellent potential to reduce emissions. Selected projects cover three modes, air, rail and truck. 15 projects were selected for a total funding of \$3.7M, which is almost half of the program allotted G&C budget.					
ecoFREIGHT	ecoFREIGHT Partnerships		International Partnerships on Emissions Reductions:	• MOU with the Railway Association of Canada was					

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
			<p>The International Partnerships on Emissions Reductions will provide for increased presence at International committees, Working Groups, and other fora that develop international approaches in aviation and marine modes. The result of this activity will be more stringent regulations, standards, best practices or guidelines being developed leading to an overall reduction of GHG emissions and air pollutants and improved efficiency from the aviation and marine sectors.</p> <p>Transportation Industry Partnership Initiative:</p> <p>TC will implement and monitor the existing Memorandum of Understanding (MOU) with the Air Transport Association of Canada. TC will also sign, implement and monitor a MOU with the Railway Association of Canada. TC will establish similar partnerships with the marine industry. Program activities will include providing the secretariat function for the various MOU Management Committees; review of annual and progress reports; and oversight audits. TC will also conduct joint studies and initiatives with industry to foster progress towards the emissions targets and continue to play a facilitator role in helping the industry to address barriers to emissions reduction that are beyond the scope of individual industries. This initiative will lead to voluntary agreements where modal associations and their members commit to reduce their air emissions.</p> <p>Efficiency Program for Freight Shippers and Forwarders:</p> <p>TC will draw upon the results of recent focus groups to establish new partnerships directly with users of the freight systems to improve their transportation decision-making and increase the adoption of more sustainable modal choices and practices. TC will conduct studies, benchmarking and other initiatives to identify and produce the</p>	<p>signed in May 2007</p> <ul style="list-style-type: none"> • First annual report under the Air Transport Association of Canada (ATAC) MOU to confirm attainment annual target, and the RAC MOU to confirm that the industry is on the path to reach its 2010 target. Both have been published and are available on the Web. • A rail conference was organized in 2007-08 to inform representatives from the rail industry, manufacturers, provincial and federal departments of opportunities. The event was held in May 2008. • Sponsored two conferences / panels to increase awareness and promote best-in-Class carriers and shippers. • Sponsored an industry survey to monitor the environmental consideration of shippers and identify trends. • Web based information network initiated as the main channel to increase awareness of both carriers and shippers of technology and best practices opportunities, and sustainable transportation choices. • The program website was launched with new program information such as program guidelines and application forms. New pages are in the development phase with additional information including case studies of current and previous technology trials. • The 2007 Canadian Industrial Transportation Association (CITA) member's benchmarking survey was completed. This is the third survey sponsored by freight program, and this one allows now identifying some trends in the shippers' perception of environmental issues. • Sponsored two awards that were presented to shippers' and/or 					

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
			information required by shippers and forwarders to inform their transportation decisions. TC will also work with industry on annual surveys on industry environmental practices and decision-making, and sponsor and/or host conferences, workshops, etc. This program will educate users of the freight systems on the impacts made as a result of their freight transportation selection decisions. With this knowledge, users will be able to include environmental impacts in the decision making process when selecting between modes and carriers during their freight transportation decisions.	carriers who demonstrate strong environmental leadership and promote green transportation standards. The Supply Chain and Logistics Green Supply Chain Award went to J.D. Smith & Sons and UPM Kymmene in 2007. Novex Delivery Solutions was presented the ecoFREIGHT Transportation Award at the 2008 Globe Awards.					
ecoFREIGHT	Marine Shore Power		<p>The contribution program is a direct response to the rapid growth in freight transportation activity, which is predicted to lead to increased emissions.</p> <p>This contribution program is designed to achieve the following objectives:</p> <ul style="list-style-type: none"> • Support improvements in modal and inter-modal efficiency and reduce air emissions and energy use in the transportation sector; and • Demonstrate and encourage the take-up of marine shore power installations in Canadian ports. <p>In the short term, this initiative is designed to achieve the following results:</p> <ul style="list-style-type: none"> • Funding of pilot projects for marine shore power; • Transfer of knowledge and dissemination of results; • Purchase and installation of marine shore power equipment by demonstration proponents; and • Increased awareness and understanding of marine shore power opportunities. <p>In the medium to long term, this initiative is designed to achieve the following results:</p> <ul style="list-style-type: none"> • Greater adoption of marine shore power equipment in Canadian ports; • Reduction of GHG emissions and air pollutants from the marine sector; and • Improved efficiency in the 	<ul style="list-style-type: none"> • The delivery of the Marine Shore Power program was placed on hold pending the coming into force of the <i>Canada Marine Act</i> amendments that would remove restriction to the provision of funding to Canadian Port Authorities. • In 2007-08, Transport Canada consulted with the Association of Canadian Port Authorities and terminal operators in order to promote the program. • Applicant's Guide and evaluation criteria were prepared in readiness for the first funding round, once the amendment entered in force. 					

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
			<p>transportation industry.</p> <p>The ultimate outcomes would be to reduce emissions of GHG and air pollutants by 2010/11 in the marine transportation sector.</p>						
ecoFREIGHT	National Harmonization Initiative for the Trucking Industry		<p>This contribution program is designed to achieve the following objectives.</p> <ul style="list-style-type: none"> • Support the government's platform commitments on the environment and Clean Air Agenda by contributing to modal efficiency and reducing air emissions and energy use in the transportation sector; • Support the removal of regulatory barriers to enable the harmonization of provincial/territorial regulations in order to adopt emissions-reducing technologies in the Canadian Trucking Industry; and • Support an increase to the freight transportation industry's participation in air emissions reduction initiatives. <p>Anticipated short-term results of this program include:</p> <ul style="list-style-type: none"> • Provinces and territories agree to consider amending their regulations to permit the implementation of emissions-reducing technologies in the trucking industry; and • Provinces and territories agree to the removal of regulatory barriers that will enable harmonization of provincial/territorial regulations. <p>Anticipated long-term results of the program include:</p> <ul style="list-style-type: none"> • Removing regulatory barriers and developing best practices in a harmonized approach across Canada, allowing for the implementation of emissions-reducing technologies in the trucking industry; and • Achieving the ultimate outcome of a reduction of GHG emissions and air pollutants in the trucking industry and indirectly increasing competitiveness. 	<ul style="list-style-type: none"> • Completion of a comprehensive set of six studies and assessments to review the implications of a national speed limiter mandate for heavy trucks. A national mandate could realize annual on-road diesel savings of 228 million litres or 0.64 Mt GHG. 					
ecoMOBILITY	The ecoMOBILITY program aims to reduce emissions from the urban passenger transportation sector by helping municipalities attract		<p>Short-term results include:</p> <ul style="list-style-type: none"> • Municipalities implement targeted TDM initiatives; • TDM project participants are 	<ul style="list-style-type: none"> • In 2007-08, first year of the program, Transport Canada conducted focused research and program implementation 		X (Funding Program)	X	X	X

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
	<p>residents to less polluting forms of transportation. By increasing the modal share of transportation options such as walking, cycling, public transit and ridesharing (e.g. carpools), harmful emissions can be reduced and other challenges such as congestion and personal health can be addressed. The program has two elements:</p> <ul style="list-style-type: none"> • Contributions to fund municipal Transportation Demand Management projects; and, • Capacity building projects such as research, guideline development and learning events. (http://www.ecoaction.gc.ca/ecotran/sport/ecomobility-ecomobilit-eng.cfm) 		<p>more aware of sustainable transportation options;</p> <ul style="list-style-type: none"> • Tools and program modules to support TDM project implementation developed; • TDM practitioners and decision-makers have requisite knowledge to foster ongoing implementation and measurement of TDM policies and programs. <p>Longer-term expected results include:</p> <ul style="list-style-type: none"> • TDM project participants reduce the vehicle kilometres traveled within their jurisdictions; • TDM project participants increase the share of trips within their jurisdictions via less energy intense modes; • Municipalities incorporate TDM approaches in their plans and operations; • Professional expertise for TDM increases. <p>The ultimate outcomes would be reductions in greenhouse gas (GHG) and criteria air contaminants (CAC) emissions in urban passenger transportation sector and an increase in use of TDM in Canadian municipalities.</p>	<p>consultations with a broad range of stakeholders to maximize the program's relevance and effectiveness.</p> <ul style="list-style-type: none"> • Based on the research findings, Transport Canada developed the Applicant's Guide for the contribution program under ecoMOBILITY. • Transport Canada launched a request for proposals (RFP) for transportation demand management (TDM) projects from municipalities and regional transportation authorities. <p>Began to develop an implementation plan for the capacity building component of the program. Specific projects were:</p> <ul style="list-style-type: none"> • The development of an RFP for the creation of standard measurement guidelines for TDM projects, and • The development of national networks for TDM practitioners. 					
Moving on Sustainable Transportation (MOST)	<p>Transport Canada established the Moving On Sustainable Transportation (MOST) funding program to promote awareness of sustainable transportation issues and encourage concrete action by Canadians. The program funds innovative community-based projects that:</p> <ul style="list-style-type: none"> • Provide Canadians with practical information and tools for better applying sustainable transportation thinking to their daily lives; • Stimulate the development of innovative tools, approaches and practices for increasing the sustainability of Canada's transportation system; and • Realize quantifiable environmental and sustainable development results on Transport Canada's sustainable development priorities 		<p>Number of contribution agreements per funding round Amount of funding</p>	<p>16 projects have been approved for funding for a total of \$1,008,500 Only one funding round of an anticipated seven rounds has been completed.</p>	X	X (Grants and Contribution Program)	X	X	X

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
Urban Transportation Showcase program	<p>The Urban Transportation Showcase Program is a Transport Canada initiative with two elements aimed at reducing greenhouse gas emission from the passenger transportation sector:</p> <ul style="list-style-type: none"> • Funding eight municipal/regional demonstrations of integrated projects to shift residents to transit, cycling and walking; and; • An Information Network featuring learning events, project case studies, capacity building initiatives, and profiles of the demonstration projects to facilitate the replication of best practices. 			<p>8 Showcases initiatives across Canada</p> <p>Information Network developed: 25 learning events brought together 2,200 professionals; given 4 awards to sustainable transportation recognized projects; 26 case studies developed and posted on web site. 160,000 visitors on web site.</p>	X	X (Grants and Contribution Program)	X	X	X
Environmental Management	<p>Environmental Management System details how Transport Canada manages environmental impacts from its own operations. (http://www.tc.gc.ca/programs/Environment/EMS/menu.htm)</p>	An environmentally responsible transportation system that contributes to Canada's Sustainable Development objectives.	Percentage level of compliance with applicable laws, regulations and guidelines.	100%		X	X	X	X
Environmental Management	<p>Environmental Protection provides information on a variety of environmental issues related to the transportation sector. (http://www.tc.gc.ca/programs/Environment/EnvironmentalProtection/menu.htm)</p> <p>Contaminated Sites program includes efforts to identify and clean up land contamination at facilities operated or managed by Transport Canada. (http://www.tc.gc.ca/programs/environment/contaminatedsites/menu.htm)</p>		Percentage of sites remediated/managed according to the plan	Ongoing			X	X	X
Environmental Assessment program	<p>Environmental assessments of proposed transportation projects and policies. (http://www.tc.gc.ca/programs/environment/environmentalassessment/menu.htm)</p>	An environmentally responsible transportation system that contributes to Canada's sustainable development objectives.	Conduct environmental assessments in accordance with the Canadian Environmental Assessment Act to avoid or mitigate adverse environmental effects.	<p>873 environmental assessments underway during 2007-2008 fiscal year.</p> <p>366 environmental assessments completed in 2007-2008 fiscal year.</p>		X		X	
Infrastructure Funding	<p>The Government of Canada is making an historic infrastructure investment of \$33 billion under the Building Canada plan. This comprehensive long-term infrastructure plan provides a framework for the federal government to collaborate with provinces, territories and municipalities to take action that is</p>	Building Canada has been designed to build quality, cost-effective public infrastructure that meets the needs of Canadians in a competitive economy, a clean environment and liveable communities. Programs are designed to fund infrastructure initiatives in priority categories of investment. Funding provided in support of these priorities	<p>1. Quality public infrastructure: Average age of public infrastructure stock as % of useful life.</p> <p>2. Meeting the needs of Canadians: Ratio of Investments to Depreciation</p>	<p>Infrastructure Framework Agreements have been signed with all jurisdictions and funding has begun to flow under the Building Canada Fund and PT Base Fund.</p> <p>Under the BCF, to date, projects valued at \$1225.6M (and representing 13.9% of the total BCF allocation of \$8.8B) have been</p>		X (Funding Program)		X	

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
	going to make a real difference in the everyday lives of Canadians.	contributes to the construction, renewal and/or enhancement of public infrastructure and build infrastructure capacity in partnership with recipients. Federal funds are directed towards the capital construction costs of a project (and not towards operational and maintenance costs).		announced.					
Regulations	As part of the Government of Canada's regulatory agenda outlined in the <i>Turning the Corner</i> action plan released in April 2007, Transport Canada is developing new regulations that will limit emissions from new motor vehicles and railways operations. The department will also ensure that international emissions standards, to be developed by the international organizations mandated to address emissions from the marine transportation and aviation sectors, are applied domestically. Details on the regulatory framework are available at: http://www.ecoaction.gc.ca/turning-virage/index-eng.cfm .	For new motor vehicles, the government is developing mandatory fuel-efficiency standards pursuant to the <i>Motor Vehicle Fuel Consumption Standards Act</i> and benchmarked against a stringent, dominant North American standard for implementation starting with 2011 model year vehicles. Pursuant to the <i>Rail Safety Act</i> , the government is developing regulations to reduce emissions for the rail sector for implementation commencing 2011.	Motor Vehicles Level of emissions intensity from freight and passenger transportation, as measured in tonnes of CO ₂ equivalent per passenger-km; passenger-trip; and tonne-km Average level of fuel-efficiency of the new fleet of light duty vehicles Rail Level of emissions intensity from freight and passenger transportation, as measured in tonnes of CO ₂ equivalent per passenger-km; passenger-trip; and tonne-km. % compliance with new regulations (rail) Marine Level of emissions intensity from freight and passenger transportation, as measured in tonnes of CO ₂ equivalent per passenger-km; passenger-trip; and tonne-km % of harmonization with international marine standards	The Government of Canada is working towards the goal established in the 2007 <i>Regulatory Framework for Air Emissions</i> . Motor Vehicles Fuel Consumption Standards Act The Government of Canada signed a Memorandum of Cooperation with the United States on April 26, 2007 to share information on fuel efficiency An issue brief was published in January 2008. Informal consultations were conducted throughout 2007 and formal consultations were conducted between January and March 2008. Delays in the development of U.S. federal fuel economy standards has delayed Canadian regulatory development process. Informal consultations were conducted throughout 2007 and formal consultations were conducted between January 17, 2008 and March 15, 2008 Awaiting pending US regulations due to government's stated desire to align with U.S regulations. Rail Transport Canada intends to develop and implement new regulations coming into effect in 2011 under the <i>Railway Safety Act, 2001</i> to reduce emissions from the rail industry in Canada. In March 2008, the U.S. Environmental Protection Agency (EPA) announced its latest air pollutant emissions standards for rail and marine. These will be taken into	X	X		X	X

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
				<p>consideration in developing Canada's regulatory framework for these sectors.</p> <p>The Memorandum of Understanding to reduce CAC and GHG emissions from railway locomotives operated by Canadian railway companies in Canada was signed by Transport Canada, Environment Canada and the Railway Association of Canada (RAC) in April of 2007. Transport Canada supported publication of the first annual Report on Locomotive Emissions Monitoring, completed by RAC on December 2007.</p> <p>Furthermore, Transport Canada began organization of the 2008 Rail Conference, which was held in May 2008. This two-day event was unanimously recognized by the industry, government officials, academia and non-governmental environmental groups as a forum to share and discuss latest technologies, best operational practices and policies to reduce emissions from railways operations.</p> <p>Marine</p> <p>In the marine sector, the Government is adopting current international standards established by the International Maritime Organization (IMO) for controlling emissions of air pollutants from ships. In May 2007, Transport Canada made regulations under the former <i>Canada Shipping Act</i> to incorporate provisions of the Annex VI Regulations for the Prevention of Air Pollution of the IMO's International Convention for the prevention of air pollution from ships (MARPOL).</p> <p>Transport Canada commenced redrafting of the regulations to fit under the new <i>Canada Shipping Act, 2001</i>, which came into force in July 2007.</p> <p>Canada is also working with the IMO on a framework to reduce GHGs from global shipping</p>					

CONFIDENTIAL for discussion purposes only

Sustainable Transportation Action/Policy	Description	Strategic Goal/Objective	Performance Indicators/Measures	Current Performance Status	Action/Policy Category			Jurisdictional Role	
					Technological	Fiscal/Regulatory	Behavioral/Societal	Leadership	Outreach
				activity. Transport Canada continued work with Environment Canada and the U.S. Environmental Protection Agency on a sulphur emissions control area (SECA) feasibility study examining whether North American waters should be designated as such areas.					
Research and Development	<p>Transport Canada supports R&D to enhance the efficiency and sustainability of the transportation system, to develop regulations and to improve the safe, secure, efficient and environmentally responsible movement of people and goods in Canada. In addition to its regulatory mandate, the R&D Program aims to provide foundational knowledge addressing challenges in the following priority areas:</p> <ul style="list-style-type: none"> • Gateways and Corridors • Northern and Arctic Transportation • Environmental Footprint and Energy Efficiency • Accessibility and Changing Demographics <p>For information on R&D projects, visit: http://www.tc.gc.ca/pol/en/randd/enu.htm</p> <p>Transport Canada is also committed to developing an Innovation Strategy that will guide departmental efforts to increase the competitiveness and efficiency of the transportation system through strategic R&D initiatives, technology applications, skills development, and national and international partnerships</p>	<p>Support a more innovative and integrated transportation system that makes best use of leading-edge technologies.</p> <p>Skills capacity and knowledge base are increased.</p>	% compliance with new regulations (rail)	<p>Ongoing organizational changes in the department continue to bring Transport Canada's innovation, research and development (R&D), and policy research activities into alignment with the Government of Canada's vision of an efficient and competitive economy.</p> <p>Transportation Technology and Innovation directorate was created within the Policy Group in October 2007. Innovation function will be consolidated in the new Directorate to facilitate the development of a coordinated and integrated approach to transportation innovation. The integration of the research and innovation activities will foster synergies/ partnerships as well as a critical mass for Transport Canada's approach to innovation</p>	X		X	X	

CONFIDENTIAL for discussion purposes only